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THE

NEW ZEALAND

OFFICIAL YEAR-BOOK

1900.

(NINTH YEAR OF ISSUE.)

Prepared under instructions from the
Right Honourable **R. J. SEDDON, P.C., Premier,**
by **E. J. von DADELSZEN, Registrar-General.**

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LONDON:
Eyre and Spottiswoode, Fleet Street. [illegible]

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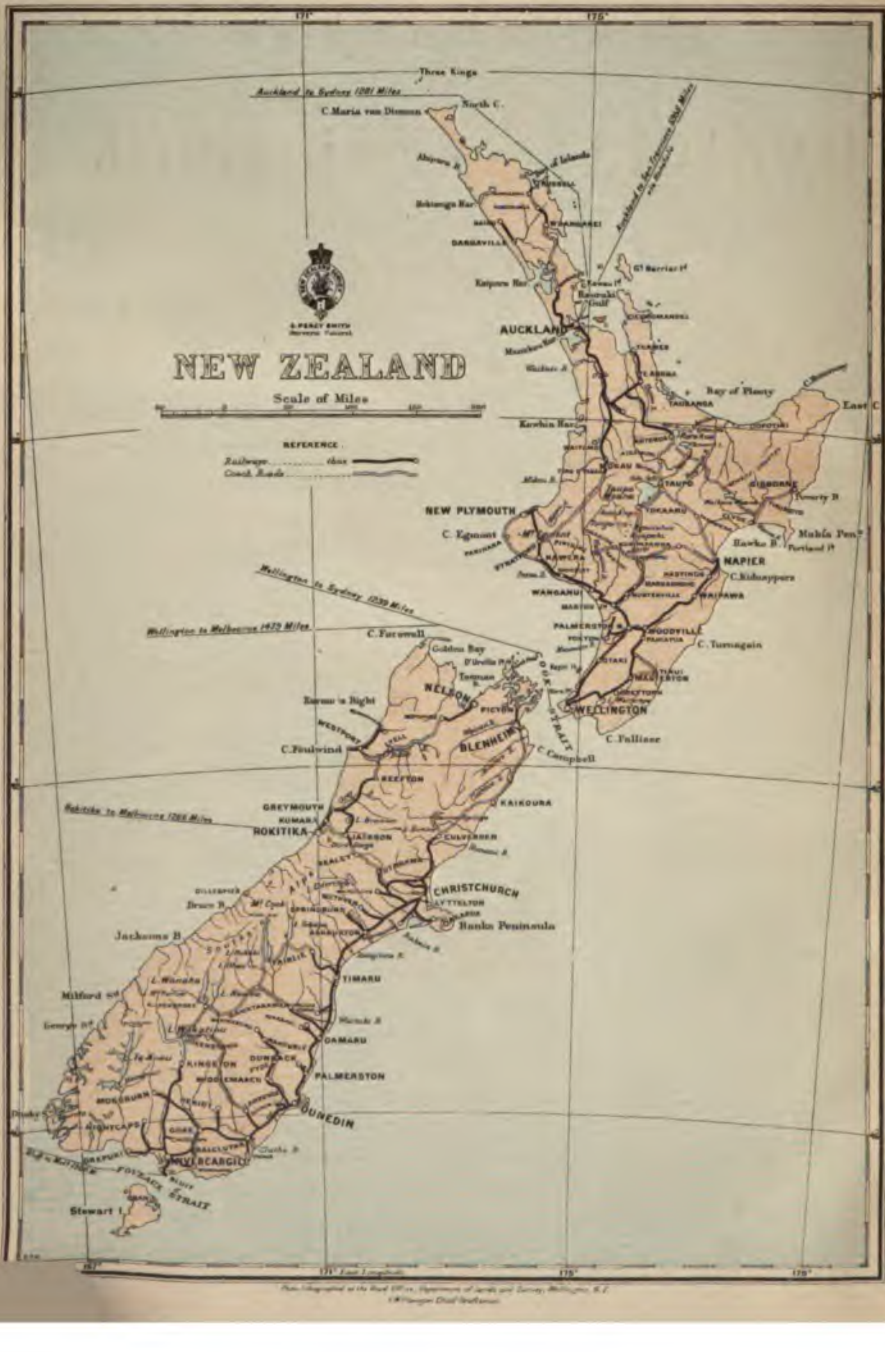

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C.W. Flanagan Chief Draftsman

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PREPARED UNDER INSTRUCTIONS FROM THE
RIGHT HONOURABLE R. J. SEDDON, P.C.,
PREMIER.

BY

E. J. VON DADELSZEN,
REGISTRAR-GENERAL.

DEC 31 1900

WELLINGTON, N.Z.
BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.
LONDON: EYRE AND SPOTTISWOODE, FLEET STREET, E.C.

1900.

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PREFACE.

THE New Zealand Official Year-book, begun in 1892, has now reached its ninth issue.

There is evidence that the work is becoming known outside the colony, and the internal demand still increases.

The plan, first adopted in 1899, of supplying to the Agent-General in London sections of the book in the form of small pamphlets, must have proved useful, as further supplies were called for. This year the series of sectional pamphlets numbers twelve, and increased numbers of each have been despatched. As soon as enough matter for purposes of a pamphlet has been printed, copies are stitched and sent away without waiting for more, thus giving early circulation in England to conveniently small portions of the book handy for general use and especially for mailing.

E. J. VON DADELSZEN.

Registrar-General's Office,
Wellington, N.Z., 23rd August, 1900.

CONTENTS.

PART I.—INTRODUCTORY: OFFICIAL.

	Page
New Zealand	1
Successive Governors	17
Supreme Court Judges, Past and Present	19
Executive Councils, 1843–56	20
Parliaments	21
Successive Ministries	22
Premiers	23
Speakers of the Legislative Council	23
Speakers of the House of Representatives	24
Foreign Consuls	24
Agent-General in London	25
The Colonial Office	25
Crown Agents for the Colonies	26
Honours held by Colonists	26
Governor of New Zealand	27
Executive Council, January, 1900	27
The General Assembly	28
Official List	33
Ecclesiastical	48
Defences, Military and Naval	50
Depots for Shipwrecked Mariners	53
Graving Docks and Patent Slips	54
Lighthouses	58
Annual Pensions	60
"The Civil Service Insurance Act, 1893"	63
New Zealand Newspapers	64
The Customs Tariff of New Zealand	71
Fees payable under Land Transfer Act	86
Duties on Estates of Deceased Persons	88

PART II.—STATISTICAL.

Section	I.	Population	89
„	II.	The Maoris	108
„	III.	Vital Statistics	114
„	IV.	Representation, and the General Election of 1899	156
„	V.	Imports: Customs and Excise Revenue	166
„	VI.	Exports, and Total Trade	193
„	VII.	Manufactories and Works	220
„	VIII.	Education	220
„	IX.	Law and Crime	242
„	X.	Government Valuation of Land and its improvements	255
„	XI.	Local Governing Bodies	261
„	XII.	Licenses and Licensed Houses, &c.	288
„	XIII.	Accumulation: Prices and Wages	294
„	XIV.	Mining	322
„	XV.	Meteorology	332
„	XVI.	Occupation of Land; and Live Stock	336
„	XVII.	Agriculture	350
„	XVIII.	Transport and Communication	364
„	XIX.	Crown Lands	372

Page
Section XX. Land for Settlements 377
„ XXI. Finance—
Subsection A.—Revenue and Expenditure of the General Government 380
„ B.—Taxation 392
„ C.—Public Debt 395
Supplementary: The Assets Realisation Board .. 407
Miscellaneous Statistics 409

PART III.—ARTICLES ON SPECIAL SUBJECTS.

Section I.—

The Land System of New Zealand 413
Advances to Settlers 426
The Land-tax and Income-tax 434
The Government Valuation of Land Act 438
Rating on unimproved Value of Land 439
"The Municipal Franchise Reform Act, 1898" 441
Old-age Pensions 441
New Zealand Consols 446
New Zealand Contingents for South Africa 449

Section II.—

Agriculture in New Zealand 451
The New Zealand Hemp Industry 477
Coal Deposits of New Zealand 479
Pumice Land 486
Kauri-Resin 489

Section III.—

Rotorua District 495
Te Aroha 501
Hanmer Springs 504
Up the Wanganui River to Tokaanu 509
Ascent of Mount Sefton 519
A Night on Mount Cook 525
The Chatham Islands 531
Maori Mythology 536

PART IV.—DESCRIPTION OF LAND DISTRICTS.

Auckland Land District.. 541
Taranaki Land District 549
Hawke's Bay Land District 558
Wellington Land District 561
Marlborough Land District 570
Nelson Land District 576
Westland Land District.. 581
Canterbury Land District 586
Otago Land District 595
Southland Land District 605

APPENDIX.

Dates of certain Principal Events in the History of New Zealand .. 609

General Index 622
Synopsis of Statistics, showing Progress of Colony, 1840–99 (two tables), and Results of Census, 1896 .. .. .. *Broadsheet*

DIAGRAMS AND ILLUSTRATIONS.

THE

NEW ZEALAND

OFFICIAL YEAR-BOOK

1900.

ADDENDA ET CORRIGENDA.

CONSULS (p. 24): (1) Belgium, C. Bastin, Esq., appointed Acting-Consul-General at Melbourne; George Lyon Denniston, Esq., appointed Consul at Dunedin (provisionally). (2) France, F. O. Bridgeman, Esq., appointed Acting Consular Agent at Dunedin *vice* P. C. Neill, deceased.

HONOURS HELD BY COLONISTS (p. 26) : Add Hon. Thomas Thompson, 1900.

ROLL OF MEMBERS OF LEGISLATIVE COUNCIL (p. 29): Hons. J. E. Jenkinson and J. Rigg from 7 June, 1900 (*Gazette*, June 14th, 1900, p. 1124).

ROLL OF MEMBERS OF THE HOUSE OF REPRESENTATIVES (p. 31): Speaker, The Hon. Sir George Maurice O'Rorke (elected 22 June, 1900); Chairman of Committees, Arthur Robert Guinness (elected 3 July, 1900); Thomas Mackenzie, for Waihemo (elected 18 July, 1900; date of notification in *Gazette*, 23 July, 1900).

EXECUTIVE COUNCIL (p. 27):—See inset facing p. 26.

PAGE 50: Defences, Military and Naval, 7th line, *for* Chief Engineer *read* Engineer-in-Chief.

THE
NEW ZEALAND OFFICIAL YEAR-BOOK, 1900.

PART I.—INTRODUCTORY; OFFICIAL.

NEW ZEALAND.

THE Colony of New Zealand consists of three main islands, with several groups of smaller islands lying at some distance from the principal group. The main islands, known as the North, the Middle, and Stewart Islands, have a coast-line 4,330 miles in length—North Island, 2,200 miles; Middle Island, 2,000 miles; and Stewart Island, 130 miles. The other islands now included within the colony are the Chatham, Auckland, Campbell, Antipodes, Bounty, and Kermadec Islands. A protectorate over the Cook Islands (Hervey Group) is exercised by the Imperial Government, the Governor of New Zealand acting as responsible adviser.

New Zealand is mountainous in many parts, but has, nevertheless, large plains in both North and Middle Islands. In the North Island, which is highly volcanic, is situated the famous Thermal-Springs District, of which a special account will be given. The Middle Island is remarkable for its lofty mountains, with their magnificent glaciers, and for the deep sounds or fiords on the western coast.

New Zealand is firstly a pastoral, and secondly an agricultural country. Sown grasses are grown almost everywhere, the extent of land laid down being more than ten millions of acres. The soil is admirably adapted for receiving these grasses, and, after the bush has been burnt off, is mostly sown over without previous ploughing. In the Middle Island a large area is covered with native grasses, all used for grazing purposes. The large extent of good grazing-land has made the colony a great wool and meat-producing country; and its agricultural capabilities are, speaking generally, very considerable. The abundance of water and the quantity of valuable timber are other natural advantages.

New Zealand is, besides, a mining country. Large deposits of coal are met with, chiefly on the west coast of the Middle Island. Gold, alluvial and in quartz, is found in both islands, the yield having been nearly fifty-six millions sterling in value to the present time. Full statistical information on this subject is given further on, compiled up to the latest dates.

DISCOVERY AND EARLY SETTLEMENT.

The first authentic account of the discovery of New Zealand is that given by Abel Jansen Tasman, the Dutch navigator. He left Batavia on the 14th August, 1642, in the yacht "Heemskirk," accompanied by the "Zeehaen" (or "Sea-hen") fly-boat. After having visited Mauritius, and discovered Tasmania, named by him "Van Diemen's Land," in honour of Anthony van Diemen, Governor of the Dutch possessions in the East Indies, he steered eastward, and on the 13th December of the same year sighted the west coast of the Middle Island of New Zealand, described by him as "a high mountainous country, which is at present marked in the charts as New Zealand."

Tasman, under the belief that the land he saw belonged to a great polar continent, and was part of the country discovered some years before by Schouten and Le Maire, to which the name of Staaten Land had been given, gave the same name of Staaten Land to New Zealand; but within about three months afterwards Schouten's "Staaten Land" was found to be merely an inconsiderable island. Upon this discovery being announced, the country that Tasman had called Staaten Land received again the name of "New Zealand," by which it has ever since been known. Tasman sailed along the coast to a bay, where he anchored. To this he gave the name of Murderers (now Massacre) Bay, on account of an unprovoked attack on a boat's crew by the natives, and the massacre of four white men. Thence he steered along the west coast of the North Island, and gave the name of Cape Maria van Diemen to the north-western extremity thereof. After sighting the islands of the Three Kings he finally departed, not having set foot in the country.

There is no record of any visit to New Zealand after Tasman's departure until the time of Captain Cook, who, after leaving the Society Islands, sailed in search of a southern continent then believed to exist. He sighted land on the 6th October, 1769, at Young Nick's Head, and on the 8th of that month cast anchor in Poverty Bay. After having coasted round the North Island and the Middle and Stewart Islands—which last he mistook for part of the Middle Island—he took his departure from Cape Farewell on the 31st March, 1770, for Australia. He visited New Zealand again in 1773, in 1774, and in 1777.

M. de Surville, a French officer in command of the vessel "Saint Jean Baptiste," while on a voyage of discovery, sighted the north-east coast of New Zealand on the 12th December, 1769, and remained for a short time. A visit was soon after paid by another French officer, M. Marion du Fresne, who arrived on the west coast of the North Island of New Zealand on the 24th March, 1772, but was, on the 12th June following, treacherously murdered at the Bay of Islands by the Natives.

In 1793 the "Dædalus," under the command of Lieutenant Hanson, was sent by the Government of New South Wales to New Zealand, and two chiefs were taken thence to Norfolk Island. There was after this an occasional intercourse between the islands of New Zealand and the English settlements in New South Wales.

In 1814 the first missionaries arrived in New Zealand—Messrs. Hall and Kendall—who had been sent as forerunners by Mr. Marsden, chaplain to the New South Wales Government. After a short stay they returned to New South Wales, and on the 19th November of that year again embarked in company with Mr. Marsden, who preached his first sermon in New Zealand on Christmas Day, 1814. He returned to Sydney on the 23rd March, 1815, leaving Messrs. Hall and Kendall, who formed the first mission station at Rangihoua, Bay of Islands, under the auspices of the Church Missionary Society. Six years later, in 1821, the work of evangelization was put on a more durable basis; but the first station of the Wesleyan mission, established by Mr. Leigh and his wife, at the valley of the Kaeo, Whangaroa, was not taken possession of until the 10th June, 1823.

COLONISATION.

The first attempt at colonisation was made in 1825 by a company formed in London. An expedition was sent out under the command of Captain Herd, who bought two islands in the Hauraki Gulf and a strip of land at Hokianga. The attempt, however, was a failure, owing to the savage character of the inhabitants. In consequence of frequent visits of whaling-vessels to the Bay of Islands, a settlement grew up at Kororareka—now called Russell—and in 1833 Mr. Busby was appointed British Resident there. A number of Europeans—generally men of low character—gradually settled in different parts of the country, and married Native women.

In 1838 a colonisation company, known as the New Zealand Company, was formed to establish settlement on systematic principles. A preliminary expedition, under the command of Colonel William Wakefield, was despatched from England on the 12th May, 1839, and arrived in New Zealand in the following August. Having purchased land from the Natives, Colonel Wakefield selected the shore of Port Nicholson, in Cook Strait, as the site of the first settlement. On the 22nd January, 1840, the first body of immigrants arrived, and founded the town of Wellington. About the same time —namely, on the 29th January, 1840—Captain Hobson, R.N., arrived at the Bay of Islands, empowered, with the consent of the

Natives, to proclaim the sovereignty of the Queen over the islands of New Zealand, and to assume the government thereof. A compact called "The Treaty of Waitangi," to which in less than six months five hundred and twelve names were affixed, was entered into, whereby all rights and powers of sovereignty were ceded to the Queen, all territorial rights being secured to the chiefs and their tribes. New Zealand was then constituted a dependency of the Colony of New South Wales, but on the 3rd May, 1841, was proclaimed a separate colony. The seat of Government had been previously established at Waitemata (Auckland), round which a settlement was formed.

The New Zealand Company having decided to form another settlement, to which the name of "Nelson" was to be given, despatched a preliminary expedition from England in April, 1841, for the purpose of selecting a site. The spot chosen was the head of Blind Bay, where a settlement was established. About the same time a number of pioneers arrived in Taranaki, despatched thither by the New Plymouth Company, a colonising society which had been formed in England, and had bought 50,000 acres of land from the New Zealand Company.

The next important event in the progress of colonisation was the arrival at Port Chalmers, on the 23rd March, 1848, of the first of two emigrant ships sent out by the Otago Association for the foundation of a settlement by persons belonging to or in sympathy with the Free Church of Scotland.

In 1849 the "Canterbury Association for founding a Settlement in New Zealand" was incorporated. On the 16th December, 1850, the first emigrant ship despatched by the association arrived at Port Cooper, and the work of opening up the adjoining country was set about in a systematic fashion, the intention of the promoters being to establish a settlement complete in itself, and composed entirely of members of the then United Church of England and Ireland.

THE MAORIS.

Prior to the colonisation of New Zealand by Europeans, the earliest navigators and explorers found a race of people already inhabiting both islands. Papers written in 1874 by Mr. (afterwards Sir) William Fox, and Sir Donald McLean, then Native Minister, state that at what time the discovery of these islands was made by the Maoris, or from what place they came, are matters of tradition only, and that much has been lost in the obscurity enveloping the history of a people without letters. Nor is there anything on record respecting the origin of the Maori people themselves, beyond the general tradition of the Polynesian race, which seems to show a series of successive migrations from west to east, probably by way of Malaysia to the Pacific. Little more can now be gathered from their traditions than that they were immigrants, and that they probably found inhabitants on the east coast of the North Island belonging to the same race as themselves—the descendants of a prior migration, whose history is lost. The tradition runs that, generations ago, the Maoris dwelt in a country named Hawaiki, and that one of their chiefs, after a long voyage, reached the northern island of New Zealand. Returning to his home with a flattering description of the country he had discovered, this chief, it is said, persuaded a number of his kinsfolk and friends, who were much harassed by war, to set out with a fleet of double canoes for the new land. The names of most of the canoes are still remembered, and each tribe agrees in its account of the doings of the people of the principal canoes after their arrival in New Zealand; and from these traditional accounts the descent of the numerous tribes has been traced. Calculations, based on the genealogical staves kept by the *tohungas*, or priests, and on the well-authenticated traditions of the people, indicate that about twenty-one generations have passed since the migration, which may therefore be assumed to have taken place about five hundred and twenty-five years ago. The position of the legendary Hawaiki is unknown, but many places in the South Seas have been thus named in memory of the motherland. The Maoris speak a very pure dialect of the Polynesian language, the common tongue, with more or less variation, in all the Eastern Pacific Islands. When Captain Cook first visited New Zealand he availed himself of the services of a native from Tahiti, whose speech was easily understood by the Maoris. In this way much information respecting the early history of the country and its inhabitants was obtained which could not have otherwise been had.

For results of recent researches as to probable origin and present numbers of the Maoris, see Section II. of Part II., *post.*

BOUNDARIES AND AREA.

The Proclamation of Captain Hobson on the 30th January, 1840, gave as the boundaries of the colony the following degrees of latitude and longitude: On the north, 34° 30′ S. lat.; on the south, 47° 10′ S. lat.; on the east, 179° 0′ E. long.; on the west, 166° 5′ E. long. These limits excluded small portions of the extreme north of the North Island and of the extreme south of Stewart Island.

In April, 1842, by Royal Letters Patent, and again by the Imperial Act 26 and 27 Vict., c. 23 (1863), the boundaries of the colony were altered so as to extend from 33° to 53° of south latitude and from 162° of east longitude to 173° of west longitude. By Proclamation bearing date the 21st July, 1887, the Kermadec Islands, lying between the 29th and 32nd degrees of south latitude and the 177th and 180th degrees of west longitude, were declared to be annexed to and to become part of the Colony of New Zealand.

The following now constitute the Colony of New Zealand:—

1. The island commonly known as the North Island, with its adjacent islets, having an aggregate area of 44,468 square miles, or 28,459,520 acres.

2. The island known as the Middle Island, with adjacent islets, having an aggregate area of 58,525 square miles, or 37,456,000 acres.

3. Stewart Island, and adjacent islets, having an area of 665 square miles, or 425,390 acres.

4. The Chatham Islands, situate 536 miles eastward of Lyttelton in the Middle Island, with an area of 375 square miles, or 239,920 acres.

5. The Auckland Islands, about 200 miles south of Stewart Island, extending about 30 miles from north to south, and nearly 15 from east to west, the area being 210,650 acres.

6. The Campbell Islands, in latitude 52° 33′ south, and longitude 169° 8′ west, about 30 miles in circumference, with an area of 45,440 acres.

7. The Antipodes Islands, about 458 miles in a south-easterly direction from Port Chalmers, in the Middle Island. These are detached rocky islands, and extend over a distance of between 4 and 5 miles from north to south. Area, 12,960 acres.

8. The Bounty Islands, a small group of islets, thirteen in number, lying north of the Antipodes Islands, and about 415 miles in an east-south-easterly direction from Port Chalmers. Area, 3,300 acres.

9. The Kermadec Islands, a group lying about 614 miles to the north-east of Russell, in the Bay of Islands. Raoul or Sunday Island, the largest of these, is about 20 miles in circuit. The next in size is Macaulay Island, about 3 miles round. Area of the group, 8,208 acres.

The total area of the colony is thus about 104,471 square miles, of which the aggregate area of the outlying groups of islands that are practically useless for settlement amounts to about 438 square miles.

A protectorate is exercised by the Imperial Government over the Cook Islands (or Hervey Group) by Proclamation dated the 27th October, 1888. The British Resident* is appointed on the recommendation of the New Zealand Government. He acts as Government Agent for the colony in all matters of trade.

Area of the Australian Colonies.

The areas of the several Australian Colonies, as given by different authorities, vary considerably. The total area of the Australian Continent is given as 2,944,628 square miles, according to a computation made by the late Surveyor-General of Victoria, Mr. J. A. Skene, from a map of Continental Australia compiled and engraved under his direction; but the following areas are taken from the latest official records of each colony:—

---

* Lieut.-Colonel Walter Edward Gudgeon is now British Resident at Rarotonga. His salary is paid by this colony. He succeeded Mr. Frederick J. Moss, who was the first Resident appointed.

	Square Miles.
Queensland	668,497
New South Wales	310,700
Victoria	87,884
South Australia	903,690
Western Australia	975,920
Total Continent of Australia	2,946,691
Tasmania	26,215
New Zealand (including the Chatham and other islands)	104,471
Total Australasia	3,077,877

The size of these colonies may be better realised by comparison of their areas with those of European countries. The areas of the following countries — Austria - Hungary, Germany, France, Belgium, Holland, Denmark, Sweden and Norway, Portugal, Spain, Italy (including Sardinia and Sicily), Switzerland, Greece, Roumania, Bulgaria, Servia, Eastern Roumelia, and Turkey in Europe—containing on the whole rather less than 1,600,000 square miles, amount to little more than half the extent of the Australian Continent. If the area of Russia in Europe be added to those of the other countries the total would be about one-seventh larger than the Australian Continent, and about one-twelfth larger than the Australasian Colonies, including New Zealand.

Area of the Colony of New Zealand.

The area of the Colony of New Zealand is about one-seventh less than the area of Great Britain and Ireland, the Middle Island of New Zealand being a little larger than the combined areas of England and Wales.

United Kingdom.	Area in Square Miles.
England and Wales	58,311
Scotland	30,463
Ireland	32,531
Total	121,305

New Zealand.	Area in Square Miles.
North Island	44,468
Middle Island	58,525
Stewart Island	665
Chatham Islands	375
Other islands	438
Total	104,471

PHYSICAL FEATURES OF THE NORTH ISLAND.

The North Island extends over a little more than seven degrees of latitude—a distance in a direct line from north to south of 430 geographical or 498 statute miles; but, as the northern portion of the colony, which covers more than three degrees of latitude, trends to the westward, the distance in a straight line from the

North Cape to Cape Palliser, the extreme northerly and southerly points of the island, is about 515 statute miles.

This island is, as a whole, hilly, and, in parts, mountainous in character, but there are large areas of plain or comparatively level country that are, or by clearing may be made, available for agricultural purposes. Of these, the principal are the plains in Hawke's Bay on the East Coast, the Wairarapa Plain in the Wellington District, and a strip of country along the West Coast, about 250 miles in length, extending from a point about thirty miles from the City of Wellington to a little north of New Plymouth. The largest plain in the North Island, Kaingaroa, extends from the shore of Lake Taupo in a north-north-easterly direction to the sea-coast in the Bay of Plenty; but a great part of it is covered with pumice-sand, and is unfitted for tillage or pasture. There are several smaller plains and numerous valleys suitable for agriculture. The level or undulating country in this island fit, or capable of being made fit, for agriculture has been roughly estimated at 13,000,000 acres. This includes lands now covered with standing forest, and swamps that can be drained; also large areas of clay-marl and pumice-covered land. The clay-marl in its natural state is cold and uninviting to the farmer, but under proper drainage and cultivation it can be brought to a high state of productiveness. This kind of land is generally neglected at the present time, as settlers prefer soils more rapidly remunerative and less costly to work. The larger portion of the North Island was originally covered with forest. Although the area of bush-land is still very great, yet year by year the amount is being reduced, chiefly to meet the requirements of settlement, the trees being cut down and burnt, and grass-seed sown on the ashes to create pasture. Hilly as the country is, yet from the nature of the climate it is especially suited for the growth of English grasses, which will flourish wherever there is any soil, however steep the land may be; once laid down in grass very little of the land is too poor to supply food for cattle and sheep. The area of land in the North Island deemed purely pastoral or capable of being made so, while too steep for agricultural purposes, is estimated at 14,200,000 acres. In the centre of the island is a lake, about twenty miles across either way, called Taupo. A large area adjacent to the lake is at present worthless pumice-country. The Waikato River, the largest in the North Island, flows out of its north-eastern corner, and runs thence north-westward until it enters the ocean a little distance south of the Manukau Harbour. This river is navigable for small steamers for about a hundred miles from its mouth. The Maori King-country, occupied by Natives who for several years isolated themselves from Europeans, lies between Lake Taupo and the western coast. The River Thames, or Waihou, having its sources north of Lake Taupo, flows northward into the Firth of Thames. It is navigable for about fifty miles, but only for small steamers. The other navigable rivers in this island are the Wairoa (Kaipara), the Wanganui, and the Manawatu, the two last of which flow towards the south-west into Cook Strait.

The mountains in the North Island are estimated to occupy about one-tenth of the surface, and do not exceed 4,000ft. in height, with the exception of a few volcanic mountains that are more lofty. Of these, the three following are the most important:—

1. The Tongariro Mountain, situated to the southward of Lake Taupo. It consists of a group of distinct volcanic cones, the lava-streams from which have so overlapped in their descent as to form one compact mountain-mass at the base. The highest of these cones is called Ngauruhoe, and attains an elevation of 7,515ft. The craters of Ngauruhoe, the Red Crater (6,140ft.), and Te Mari (4,990ft.) are the three vents from which the latest discharges of lava have taken place, the most recent having occurred in 1868. These craters are still active, steam and vapour issuing from them with considerable force and noise, the vapours, charged with pungent gases and acids, making it dangerous to approach too near the crater-lips.

2. Ruapehu. This mountain lies to the south of Ngauruhoe and Tongariro. It is a volcanic cone in the solfatara stage, and reaches the height of 9,008ft., being in part considerably above the line of perpetual snow. The most remarkable feature of this mountain is the crater-lake on its summit, which is subject to slight and intermittent eruptions, giving rise to vast quantities of steam. Recently —in March, 1895—such an eruption took place, forming a few hot springs on the margin of the lake, and increasing the heat in the lake itself. This lake lies at the bottom of a funnel-shaped crater, the steep sides of which are mantled with ice and snow. The water occupies a circular basin about 500ft. in diameter, some 300ft. below the enclosing peaks, and is quite inaccessible except by the use of ropes. This lake, and the three craters previously mentioned on Tongariro, are all in one straight line, which, if produced, would pass through the boiling springs at Tokaanu on the southern margin of Lake Taupo, the volcanic country north-east of that lake, and White Island, an active volcano in the Bay of Plenty, situated about twenty-seven miles from the mainland.

3. Mount Egmont. This is an extinct volcanic cone, rising to a height of 8,260ft. The upper part is always covered with snow. This mountain is situated close to New Plymouth, and is surrounded by one of the most fertile districts in New Zealand. Rising from the plains in solitary grandeur, it is an object of extreme beauty, the cone being one of the most perfect in the world.

It is estimated that the area of mountain-tops and barren country at too high an altitude for sheep, and therefore worthless for pastoral purposes, amounts, in the North Island, to 300,000 acres.

Without a doubt the hot springs form the most remarkable feature of the North Island. They are found over a large area, extending from Tongariro, south of Lake Taupo, to Ohaeawai, in the extreme north—a distance of some 300 miles; but the principal seat of hydrothermal action appears to be in the neighbourhood of Lake Rotorua, about forty miles north-north-east from Lake Taupo. By the destruction of the famed Pink and White Terraces and of Lake Rotomahana during the eruption of Mount Tarawera on the 10th June, 1886, the neighbourhood has been deprived of attractions unique in character and of unrivalled beauty; but the natural features of the country—the numerous lakes, geysers, and hot springs, some of which possess remarkable curative properties in certain complaints—are still very attractive to tourists and invalids. The world-wide importance of conserving this region as a sanatorium for all time has been recognised by the Government, and it is now dedicated by Act of Parliament to that purpose.

Notwithstanding the length of coast-line, good harbours in the North Island are not numerous. Those on the west coast north of New Plymouth are bar-harbours, unsuitable for large vessels. The principal harbours are the Waitemata Harbour, on which Auckland is situated—this is rather a deep estuary than a harbour; several excellent havens in the northern peninsula; and Port Nicholson, on the borders of which Wellington is situated. This is a land-locked harbour, about six miles across, having a comparatively narrow but deep entrance from the ocean. The water is deep nearly throughout.

The Cape Colville Peninsula is rich in gold-bearing quartz.

COOK STRAIT.

Cook Strait separates the North and Middle Islands. It is some sixteen miles across at its narrowest part, but in the widest about ninety. The strait is invaluable for the purpose of traffic between different parts of the colony.

PHYSICAL FEATURES OF THE MIDDLE ISLAND.

The extreme length of the Middle Island, from Jackson's Head, in Cook Strait, to Puysegur Point, at the extreme south-west, is about 525 statute miles; the greatest distance across at any point is in Otago (the southernmost) District, about 180 miles.

The Middle Island is intersected along almost its entire length by a range of mountains known as the Southern Alps. Some of the summits reach a height of from 10,000ft. to 12,000ft., Mount Cook, the highest peak, rising to 12,349ft.

In the south, in the neighbourhood of the sounds and Lake Te Anau, there are many magnificent peaks, which, though not of great height, are, owing to their latitude, nearly all crowned with perpetual ice and snow. Further north the mountains increase in height—Mount Earnslaw, at Lake Wakatipu; and Mount Aspiring, which has been aptly termed the New Zealand Matterhorn, 9,949 ft. in height, at Lake Wanaka. Northward of this again are Mount (or Aorangi), Mount Sefton, and other magnificent peaks.

beauty and grandeur of scenery the Southern Alps of New

Zealand may worthily compare with, while in point of variety they are said actually to surpass, the Alps of Switzerland. In New Zealand few of the mountains have been scaled; many of the peaks and most of the glaciers are as yet unnamed; and there is still, in parts of the Middle Island, a fine field for exploration and discovery—geographical, geological, and botanical. The wonders of the Southern Alps are only beginning to be known; but the more they are known the more they are appreciated. The snow-line in New Zealand being so much lower than in Switzerland, the scenery, though the mountains are not quite so high, is of surpassing grandeur.

There are extensive glaciers on both sides of the range, those on the west being of exceptional beauty, as, from the greater abruptness of the mountain-slopes on that side, they descend to within about 700ft. of the sea-level, and into the midst of the evergreen forest. The largest glaciers on either side of the range are easily accessible.

The following gives the sizes of some of the glaciers on the eastern slope:—

Name.	Area of Glacier.	Length of Glacier.		Greatest Width.		Average Width.	
	Acres.	Miles	ch.	Miles	ch.	Miles	ch.
Tasman	13,664	18	0	2	14	1	15
Murchison	5,800	10	70	1	5	0	66
Godley	5,312	8	0	1	55	1	3
Mueller	3,200	8	0	0	61	0	50
Hooker	2,416	7	25	0	54	0	41

The Alletsch Glacier in Switzerland, according to Ball, in the "Alpine Guide," has an average width of one mile. It is in length and width inferior to the Tasman Glacier.

Numerous sounds or fiords penetrate the south-western coast. They are long, narrow, and deep (the depth of water at the upper part of Milford Sound is 1,270ft., although at the entrance only 130ft.), surrounded by giant mountains clothed with foliage to the snow-line, with waterfalls, glaciers, and snowfields at every turn. Some of the mountains rise almost precipitously from the water's edge to 5,000ft. and 6,000ft. above the sea. Near Milford, the finest of these sounds, is the great Sutherland Waterfall, 1,904ft. high.

The general surface of the northern portion of the Middle Island, comprising the Provincial Districts of Nelson and Marlborough, is mountainous, but the greater part is suitable for grazing purposes. There are some fine valleys and small plains suitable for agriculture, of which the Wairau Valley or Plain is the largest. Deep sounds, extending for many miles, break the coast-line abutting on Cook Strait. The City of Nelson is situated at the head of Blind Bay, which has a depth inwards from Cook Strait of about forty statute miles.

The Provincial District of Canterbury lies to the south of the Marlborough District, and on the eastern side of the island. Towards the north the land is undulating; then there is a stretch of almost perfectly level country extending towards the south-west 160 miles, after which, on the south, the country is undulating as far as the borders of the Otago District. On the east a block of hill-country rises abruptly from the plain and extends for some miles seaward. This is Banks Peninsula, containing several good harbours, the principal being Port Cooper, on the north, on which is situated Lyttelton, the chief port of the district: the harbour of Akaroa, one of the finest in the colony, is on the southern coast of this peninsula.

The District of Otago is, on the whole, mountainous, but has many fine plains and valleys suitable for tillage. The mountains, except towards the west coast, are generally destitute of timber, and suitable for grazing sheep. There are goldfields of considerable extent in the interior of this district. The inland lakes are also very remarkable features. Lake Wakatipu extends over fifty-four miles in length, but its greatest width is not more than four miles, and its area only 114 square miles. It is 1,070ft. above sea-level, and has a depth varying from 1,170ft. to 1,296ft. Te Anau Lake is somewhat larger, having an area of 132 square miles. These lakes are bounded on the west by broken, mountainous, and wooded country, extending to the ocean.

The chief harbours in Otago are Port Chalmers, at the head of which Dunedin is situated, and the Bluff Harbour, at the extreme south.

The District of Westland, extending along the west coast of the Middle Island, abreast of Canterbury, is more or less auriferous throughout. The western slopes of the central range of mountains are clothed with forest-trees to the snow-line; but on the eastern side timber is scarce, natural grasses covering the ground.

The rivers in the Middle Island are for the most part mountain torrents, fed by glaciers in the principal mountain ranges. When the snow melts they rise in flood, forming, where not confined by rocky walls, beds of considerable width, generally covered by enormous deposits of shingle. The largest river in the colony as regards volume of water is the Clutha. It is 154 miles in length, but is only navigable for boats or small river-steamers for about thirty miles. The Rivers Buller, Grey, and Hokitika, on the West Coast, are navigable for a short distance from their mouths. They form the only ports in the Westland District. In their unimproved state they admitted, owing to the bars at their mouths, none but vessels of small draught; but, in consequence of the importance of the Grey and Buller Rivers as the sole ports available for the coal-export trade, large harbour-works have been undertaken, resulting in the deepening of the beds of these rivers, and giving a depth of from 18ft. to 26ft. of water on the bar.

The area of level or undulating land in the Middle Island available for agriculture is estimated at about 15,000,000 acres. About 13,000,000 are suitable for pastoral purposes only, or may become so when cleared of forest and sown with grass-seed. The area of barren land and mountain-tops is estimated at about 9,000,000 acres.

STEWART ISLAND.

Foveaux Strait separates the Middle from Stewart Island. This last island has an area of only 425,390 acres.

Stewart Island is a great tourist resort during the summer months, and is easily reached by steamer from the Bluff, distant about 25 miles.

The principal peak is Mount Anglem, 3,200 ft. above sea-level, which has an extinct crater at its summit. Most of the island is rugged and forest-clad; the climate is mild, frost being seldom experienced; and the soil, when cleared of bush, is fertile.

The chief attractions are the numerous bays and fiords. Paterson Inlet is a magnificent sheet of water, about ten miles by four miles, situated close to Half-moon Bay, the principal port, where between three and four hundred people live. Horse-shoe Bay and Port William are within easy reach of Half-moon Bay. Port Pegasus, a land-locked sheet of water about eight miles by a mile and a half, is a very fine harbour. At "The Neck" (Paterson Inlet) there is a Native settlement of over a hundred Maoris and half-castes. The bush is generally very dense, with thick undergrowth. Rata, black-pine, white-pine, miro, and totara are the principal timber trees. Fish are to be had in great abundance and variety; oysters form an important industry. Wild pigeons, ducks, and mutton-birds are plentiful.

THE OUTLYING ISLANDS.

The outlying group of the Chatham Islands, 480 statute miles east-south-east from Wellington, and 536 miles eastward of Lyttelton, consists of two principal islands and several unimportant islets. The largest island contains about 222,490 acres, of which an irregular-shaped lake or lagoon absorbs 45,960 acres. About one quarter of the surface of the land is covered with forest, the rest with fern or grass. The hills nowhere rise to a great height. Pitt Island is the next in size; the area is 15,330 acres. The great portion of both islands is used for grazing sheep.

The Kermadec group of islands, four in number, is situated between 29° 10′ and 31° 30′ south latitude, and between 177° 45′ and 179° west longitude. They are named Raoul or Sunday Island, Macaulay Island, Curtis Island, and L'Espérance or French Rock. The principal island, Sunday, is 600 miles distant from Auckland. The islands are volcanic, and in two of them signs of activity are still to be seen. The rainfall is plentiful, but not excessive. The climate is mild and equable, and slightly warmer than the north of New Zealand. The following are the areas of the islands and islets of the group: Sunday Island, 7,200 acres; Herald group of islets, 85 acres; Macaulay Island, 764 acres; Curtis Islands, 128 acres and 19 acres; L'Espérance, 12 acres: total, 8,208 acres. Sunday Island is twenty miles in circumference, roughly triangular in shape, and at the highest point 1,723ft. above the sea-level. It is rugged and broken over a very large extent of its surface, and, except in a few places, covered with forest. The soil everywhere on the island is very rich, being formed by the decomposition of a dark-coloured pumiceous tuff and a black andesitic lava, with which is closely mixed a fine vegetable mould. The great luxuriance and richness of the vegetation bear witness to the excellence of the soil, which is everywhere—except where destroyed by eruptions, and on the steep cliffs—the same rich loam. Want of water is one of the drawbacks. Three of the four lakes on the island are fresh, but so difficult of approach as to be practically useless.

The Auckland Islands are about 290 miles south of Bluff Harbour, their position being given on the Admiralty chart as latitude 50° 31′ 29″ S., and longitude 166° 19′ 12″ E. They have several good harbours. Port Ross, at the north end of the principal island, was described by the eminent French commander, D'Urville, as one of the best harbours of refuge in the known world. At the southern end of the island there is a through passage extending from the east to the west coast. It has been variously named Adam's Strait and Carnley Harbour, and forms a splendid sheet of water. The largest of the islands is about 27 miles long by about 15 miles broad, and is very mountainous, the highest part being about 2,000ft. above the sea. The west coast is bold and precipitous, but the east coast has several inlets. The wood on the island is, owing to the strong prevailing wind, scrubby in character. The New Zealand Government maintains at this island a dépôt of provisions and clothing for the use of shipwrecked mariners.

CONSTITUTION.

British sovereignty was proclaimed over New Zealand in January, 1840, and the country became a dependency of New South Wales until the 3rd May, 1841, when it was made a separate colony. The seat of Government was at Auckland, and the Executive included the Governor, and three gentlemen holding office as Colonial Secretary, Attorney-General, and Colonial Treasurer.

The successors of these gentlemen, appointed in August, 1841, May, 1842, and January, 1844, respectively, continued in office until the establishment of Responsible Government on the 7th May, 1856. Only one of them—Mr. Swainson, the Attorney-General—sat as a member of the first General Assembly, opened on the 27th May, 1854. During the session of that year there were associated with the permanent members of the Executive Council certain members of the General Assembly. These latter held no portfolios.

The Government of the colony was at first vested in the Governor, who was responsible only to the Crown; but in 1852 an Act granting representative institutions to the colony was passed by the Imperial Legislature. Under it the constitution of a General Assembly for the whole colony was provided for, to consist of a Legislative Council, the members of which were to be nominated by the Governor, and of an elective House of Representatives. The first session of the General Assembly was opened on the 27th May, 1854, but the members of the Executive were not responsible to Parliament. The first Ministers under a system of Responsible Government were appointed on the 18th April, 1856. By the Act of 1852 the colony was divided into six provinces, each to be presided over by an elective Superintendent, and to have an elective Provincial Council, empowered to legislate, except on certain specified subjects. The franchise amounted practically to household suffrage. In each case the election was for four years, but a dissolution of the Provincial Council by the Governor could take place at any time, necessitating a fresh election both of the Council and of the Superintendent. The Superintendent was chosen by the whole body of electors of the province; each member of the Provincial Council by the electors of a district. The Provincial Governments, afterwards increased to nine, remained as integral parts of the Constitution of the colony until the 1st November, 1876, when they were abolished by an Act of the General Assembly, that body having been vested with the power of altering the Constitution Act. On the same day an Act of the General Assembly which subdivided the colony (exclusive of the areas included within municipalities) into counties, and established a system of local county government, came into force.

GOVERNMENT.

The Governor is appointed by the Queen. His salary is £5,000 a year, and is provided by the colony.

Members of the Legislative Council hold their seats under writs of summons from the Governor. Till the year 1891 the appointments were for life; but in September of that year an Act was passed making appointments after that time tenable for seven years only, though Councillors may be reappointed. In either case seats may be vacated by resignation or extended absence. Two members of the Council are aboriginal native chiefs.

The members of the House of Representatives are elected for three years from the time of each general election; but at any time a dissolution of Parliament by the Governor may render a general election necessary. Four of the members are representatives of Native constituencies. An Act was passed in 1887 which provided that, on the dissolution of the then General Assembly, the number of members to be thereafter elected to the House of Representatives should be seventy-four in all, of whom four were to be elected, under the provisions of the Maori Representation Acts, as representatives of Maori electors only. For the purposes of European representation the colony is divided into sixty-two electoral districts, four of which—the Cities of Auckland, Wellington, Christchurch, and Dunedin—return each three members, and all the other electorates one each. Members of the House of Representatives are chosen by the votes of the inhabitants in every electoral district appointed for that purpose. By "The Members of the House of Representatives Disqualification Act, 1897," no person, who, being a bankrupt within the meaning of "The Bankruptcy Act, 1892," has not obtained an order of discharge under that Act shall be qualified to be nominated as a candidate for election, or to be elected, or to take his seat as a member of the House of Representatives, anything in "The Electoral Act, 1893," or any other Act to the contrary notwithstanding.

In 1889 an amendment of the Representation Act was passed, which contained a provision prohibiting any elector from giving his vote in respect of more than one electorate at any election. "The Electoral Act, 1893," extended to women of both races the right to register as electors, and to vote at the elections for members of the House of Representatives. The qualification for registration is the same for both sexes. No person is entitled to be registered on more than one electoral roll within the colony. Women are not qualified to be elected as members of the House of Representatives. The electoral laws are the subject of special comment further on in this work. Every man registered as an elector, and not coming within the meaning of section 8 of "The Electoral Act, 1893," is qualified to be elected a member of the House of Representatives for any electoral district. For European representation every adult person, if resident one year in the colony and three months in one electoral district, can be registered as an elector. Freehold property of the value of £25 held for six months preceding the day of registration until 1896 entitled a man or woman to register, if not already registered under the residential qualification. But the Amendment Act of 1896 abolished the property qualification (except in case of existing registrations), and residence alone now entitles a man or woman to have his or her name placed upon an electoral roll. For Maori representation every adult Maori resident in any Maori electoral district (of which there are four only in the colony) can vote. Registration is not required in Native districts.

THE SEAT OF GOVERNMENT.

Up to the year 1865 the seat of Government of New Zealand was at Auckland. Several attempts were made by members of Parliament, by motions in the Legislative Council and House of Representatives, to have it removed to some more central place; but it was not until November, 1863, that Mr. Domett (the then ex-Premier) was successful in carrying resolutions in the House of Representatives that steps should be taken for appointing some place in Cook Strait as the permanent seat of Government in the colony. The resolutions adopted were: "(1.) That it has become necessary that the seat of Government in the colony should be transferred to some suitable locality in Cook Strait. (2.) That, in order to promote the accomplishment of this object, it is desirable that the selection of the particular site in Cook Strait should be left to the arbitrament of an impartial tribunal. (3.) That, with this view, a Bill should be introduced to give effect to the above resolutions." On the 25th November an address was presented to the Governor, Sir George Grey, K.C.B., by the Commons of New Zealand, requesting that the Governors of the Colonies of New South Wales, Victoria, and Tasmania, might each be asked to appoint one Commissioner for the purpose of determining the best site in Cook Strait. Accordingly, the Hon. Joseph Docker, M.L.C., New South Wales; the Hon. Sir Francis Murphy, Speaker of the Legislative Council, Victoria; and R. C. Gunn, Esq., Tasmania, were appointed Commissioners.

These gentlemen, having made a personal inspection of all suitable places, arrived at the unanimous decision "that Wellington, in Port Nicholson, was the site upon the shores of Cook Strait which presented the greatest advantages for the administration of the government of the colony."

The seat of Government was, therefore, in accordance with the recommendation of the Commissioners, removed to Wellington in February, 1865.

PUBLIC WORKS.

Nearly all the public works of New Zealand are in the hands of the Government of the colony, and in the early days they simply kept pace with the spread of settlement. In 1870, however, a great impetus was given to the progress of the whole country by the inauguration of the "Public Works and Immigration Policy," which provided for carrying out works in advance of settlement. Railways, roads, and water-races were constructed, and immigration was conducted on a large scale. As a consequence, the population increased from 267,000 in 1871 to 501,000 in 1881, and to 756,505 at the close of the year 1899, exclusive of Maoris.

SUCCESSIVE GOVERNORS.

SUCCESSION OF GOVERNORS OF NEW ZEALAND, AND THE DATES ON WHICH THEY ASSUMED AND RETIRED FROM THE GOVERNMENT.

Captain William Hobson, R.N., from Jan., 1840, to 10 Sept., 1842.

[British sovereignty was proclaimed by Captain Hobson in January, 1840, and New Zealand became a dependency of the Colony of New South Wales until 3rd May, 1841, at which date it was proclaimed a separate colony. From January, 1840, to May, 1841, Captain Hobson was Lieutenant-Governor of New Zealand under Sir George Gipps, Governor of New South Wales, and from May, 1841, Governor of New Zealand; the seat of Government being at Auckland, where he died in September, 1842. From the time of Governor Hobson's death, in September, 1842, until the arrival of Governor Fitzroy, in December, 1843, the Government was carried on by the Colonial Secretary, Lieutenant Shortland.]

Lieutenant Shortland, Administrator, from 10 Sept., 1842, to 26 Dec., 1843.

Captain Robert Fitzroy, R.N., from 26 Dec., 1843, to 17 Nov., 1845.

Captain Grey (became Sir George Grey, K.C.B., in 1848), from 18 Nov., 1845, to 31 Dec., 1853.

> [Captain Grey held the commission as Lieutenant-Governor of the colony until the 1st January, 1848, when he was sworn in as Governor-in-Chief over the Islands of New Zealand, and as Governor of the Province of New Ulster and Governor of the Province of New Munster. After the passing of the New Zealand Constitution Act, Sir George Grey was, on the 13th September, 1852, appointed Governor of the colony, the duties of which office he assumed on the 7th March, 1853. In August, 1847, Mr. E. J. Eyre was appointed Lieutenant-Governor of New Munster: he was sworn in, 28th January, 1848. On 3rd January, 1848, Major-General George Dean Pitt was appointed Lieutenant-Governor of New Ulster: he was sworn in, 14th February, 1848; died, 8th January, 1851; and was succeeded as Lieutenant-Governor by Lieutenant-Colonel Wynyard, appointed 14th April, 1851; sworn in, 26th April, 1851. The duties of the Lieutenant-Governor ceased on the assumption by Sir George Grey of the office of Governor, on the 7th March, 1853.]

Lieutenant-Colonel Robert Henry Wynyard, C.B., Administrator, from 3 Jan., 1854, to 6 Sept., 1855.

Colonel Thomas Gore Browne, C.B., from 6 Sept., 1855, to 2 Oct., 1861.

Sir George Grey, K.C.B., Administrator, from 3 Oct., 1861; Governor, from 4 Dec., 1861, to 5 Feb., 1868.

Sir George Ferguson Bowen, G.C.M.G., from 5 Feb., 1868, to 19 Mar., 1873.

Sir George Alfred Arney, Chief Justice, Administrator, from 21 Mar. to 14 June, 1873.

Sir James Fergusson, Baronet, P.C., from 14 June, 1873, to 3 Dec., 1874.

The Marquis of Normanby, P.C., G.C.M.G., Administrator, from 3 Dec., 1874; Governor, from 9 Jan., 1875, to 21 Feb., 1879.

James Prendergast, Esquire, Chief Justice, Administrator, from 21 Feb. to 27 Mar., 1879.

Sir Hercules George Robert Robinson, G.C.M.G., Administrator, from 27 Mar., 1879; Governor, from 17 April, 1879, to 8 Sept., 1880.

James Prendergast, Esquire, Chief Justice, Administrator, from 9 Sept. to 29 Nov., 1880.

The Honourable Sir Arthur Hamilton Gordon, G.C.M.G., from 29 Nov., 1880, to 23 June, 1882.

Sir James Prendergast, Chief Justice, Administrator, from 24 June, 1882, to 20 Jan., 1883.

Lieutenant-General Sir William Francis Drummond Jervois, G.C.M.G., C.B., from 20 Jan., 1883, to 22 Mar., 1889.

Sir James Prendergast, Chief Justice, Administrator, from 23 Mar. to 2 May, 1889.

The Earl of Onslow, G.C.M.G., from 2 May, 1889, to 24 Feb., 1892.

Sir James Prendergast, Chief Justice, Administrator, from 25 Feb., to 6 June, 1892.

The Earl of Glasgow, G.C.M.G., from 7 June, 1892, to 6 Feb., 1897.

Sir James Prendergast, Chief Justice, Administrator, from 8 Feb., 1897, to 9th Aug., 1897.

The Earl of Ranfurly, K.C.M.G., from 10th Aug., 1897.

SUPREME COURT JUDGES.

Supreme Court Judges, past and present, with Dates of Appointment, and of Resignation or Death.

Sir W. Martin, appointed Chief Justice, 10 Jan., 1842. Resigned, 12 June, 1857.

H. S. Chapman, appointed, 26 Dec., 1843. Resigned, 30 July, 1850. Reappointed, 23 Mar., 1864. Resigned, 31 Mar., 1875.

S. Stephen, appointed, 30 July, 1850. Appointed Acting Chief Justice, 20 Oct., 1855. Died, 13 Jan., 1858.

Daniel Wakefield, appointed, Oct., 1855. Died, Oct., 1857.

Hon. H. B. Gresson, appointed temporarily, 8 Dec., 1857. Permanently, 1 July, 1862. Resigned, 31 Mar., 1875.

Sir G. A. Arney, appointed Chief Justice, 1 Mar., 1858. Resigned 31 Mar., 1875.

A. J. Johnston, appointed, 2 Nov., 1858. Died, 1 June, 1888.

C. W. Richmond, appointed, 20 Oct., 1862. Died, 3 Aug., 1895.

J. S. Moore, appointed temporarily, 15 May, 1866. Relieved, 30 June, 1868.

C. D. R. Ward, appointed temporarily, 1 Oct., 1868. Relieved, May, 1870. Appointed temporarily, 21 Sept., 1886. Relieved, 12 Feb., 1889.

Sir J. Prendergast, appointed Chief Justice, 1 April, 1875. Resigned, 25 May, 1899.

T. B. Gillies, appointed, 3 Mar., 1875. Died, 26 July, 1889.

J. S. Williams, appointed, 3 Mar., 1875.

J. E. Denniston, appointed, 11 Feb., 1889.

E. T. Conolly, appointed, 19 Aug., 1889.

Hon. Sir P. A. Buckley, K.C.M.G., appointed, 20 Dec., 1895. Died, 18 May, 1896.

W. B. Edwards, appointed, 11 July, 1896.

F. W. Pennefather, appointed temporarily, 25 April, 1898. Resigned, 24 April, 1899.

Hon. Sir Robert Stout, K.C.M.G., appointed Chief Justice, 22 June, 1899.

J. C. Martin, acting Judge, appointed, 12 April, 1900.

EXECUTIVE COUNCIL, 1843–56.

MEMBERS OF THE EXECUTIVE COUNCIL OF THE COLONY OF NEW ZEALAND PREVIOUS TO THE ESTABLISHMENT OF RESPONSIBLE GOVERNMENT (NOT INCLUDING THE OFFICERS COMMANDING THE FORCES).

Willoughby Shortland, Colonial Secretary, from 3 May, 1841, to 31 Dec., 1843; succeeded by Mr. Sinclair.

Francis Fisher, Attorney-General, from 3 May to 10 Aug., 1841; succeeded by Mr. Swainson.

George Cooper, Colonial Treasurer, from 3 May, 1841, to 9 May, 1842; succeeded by Mr. Shepherd.

William Swainson, Attorney-General, from 10 Aug., 1841, to 7 May, 1856.

Alexander Shepherd, Colonial Treasurer, from 9 May, 1842, to 7 May, 1856.

Andrew Sinclair, Colonial Secretary, from 6 Jan., 1844, to 7 May, 1856.

[The three gentlemen last mentioned were nominated by Her Majesty as *ex officio* members of the Executive Council. Two of them, the Colonial Secretary and the Colonial Treasurer, were not members of the General Assembly, opened for the first time 27th May, 1854, but all three remained in office until the establishment of Responsible Government.]

James Edward FitzGerald, M.H.R., without portfolio, from 14 June to 2 Aug., 1854.

Henry Sewell, M.H.R., without portfolio, from 14 June to 2 Aug., 1854.

Frederick Aloysius Weld, M.H.R., without portfolio, from 14 June to 2 Aug., 1854.

Francis Dillon Bell, M.L.C., without portfolio, from 30 June to 11 July, 1854.

Thomas Houghton Bartley, M.L.C., without portfolio, from 14 July to 2 Aug., 1854.

Thomas Spencer Forsaith, M.H.R., without portfolio, from 31 Aug. to 2 Sept., 1854.

Edward Jerningham Wakefield, M.H.R., without portfolio, from 31 Aug. to 2 Sept., 1854.

William Thomas Locke Travers, M.H.R., without portfolio, 31 Aug. to 2 Sept., 1854.

James Macandrew, M.H.R., without portfolio, from 31 Aug. to 2 Sept., 1854.

PARLIAMENTS.

NUMBER OF PARLIAMENTS SINCE THE CONSTITUTION ACT PASSED FOR CONFERRING REPRESENTATIVE INSTITUTIONS UPON THE COLONY OF NEW ZEALAND, WITH THE DATES OF OPENING AND CLOSING OF SESSIONS AND DATES OF DISSOLUTION.

Parliament.	Date of Opening of Sessions.	Date of Prorogation.
First (dissolved 15th September, 1855)	27 May, 1854	9 August, 1854.
	31 August, 1854	16 September, 1854.
	8 August, 1855	15 September, 1855.
Second (dissolved 5th November, 1860)	15 April, 1856	16 August, 1856.
	(No session in 1857)	
	10 April, 1858	21 August, 1858.
	(No session in 1859)	
	30 July, 1860	5 November, 1860.
Third (dissolved 27th January, 1866)	3 June, 1861	7 September, 1861.
	7 July, 1862	15 September, 1862.
	19 October, 1863	14 December, 1863.
	24 November, 1864	13 December, 1864.
	26 July, 1865	30 October, 1865.
Fourth (dissolved 30th December, 1870)	30 June, 1866	8 October, 1866.
	9 July, 1867	10 October, 1867.
	9 July, 1868	20 October, 1868.
	1 June, 1869	3 September, 1869.
	14 June, 1870	13 September, 1870.
Fifth (dissolved 6th December, 1875)	14 August, 1871	16 November, 1871.
	16 July, 1872	25 October, 1872.
	15 July, 1873	3 October, 1873.
	3 July, 1874	31 August, 1874.
	20 July, 1875	21 October, 1875.
Sixth (dissolved 15th August, 1879)	15 June, 1876	31 October, 1876
	19 July, 1877	10 December, 1877.
	26 July, 1878	2 November, 1878.
	11 July, 1879	11 August, 1879.
Seventh (dissolved 8th November, 1881)	24 September, 1879	19 December, 1879.
	28 May, 1880	1 September, 1880.
	9 June, 1881	24 September, 1881.
Eighth (dissolved 27th June, 1884)	18 May, 1882	15 September, 1882.
	14 June, 1883	8 September, 1883.
	5 June, 1884	24 June, 1884.

PARLIAMENTS—*continued.*

Parliament.	Date of Opening of Sessions.	Date of Prorogation.
Ninth (dissolved 15th July, 1887) ..	7 August, 1884 .. 11 June, 1885 .. 13 May, 1886 .. 26 April, 1887 ..	10 November, 1884. 22 September, 1885. 18 August, 1886 10 July, 1887.
Tenth (dissolved 3rd October, 1890)	6 October, 1887 .. 10 May, 1888 .. 20 June, 1889 .. 19 June, 1890 ..	23 December, 1887. 31 August, 1888. 19 September, 1889. 18 September, 1890.
Eleventh (dissolved 8th November, 1893)	23 January, 1891 .. 11 June, 1891 .. 23 June, 1892 .. 22 June, 1893 ..	31 January, 1891. 5 September, 1891. 12 October, 1892. 7 October, 1893.
Twelfth (dissolved 14th November, 1896)	21 June, 1894 .. 20 June, 1895 .. 11 June, 1896 ..	24 October, 1894. 2 November, 1895. 19 October, 1896.
Thirteenth (dissolved 15th November, 1899)	7 April, 1897 .. 23 September, 1897 24 June, 1898 .. 23 June, 1899 ..	12 April, 1897. 22 December, 1897. 5 November, 1898. 24 October, 1899.

SUCCESSIVE MINISTRIES

SINCE THE ESTABLISHMENT OF RESPONSIBLE GOVERNMENT IN NEW ZEALAND IN 1856.

Name of Ministry.	Assumed Office.	Retired.
1. Bell-Sewell	7 May, 1856 ..	20 May, 1856.
2. Fox	20 May, 1856 ..	2 June, 1856.
3. Stafford	2 June, 1856 ..	12 July, 1861.
4. Fox	12 July, 1861 ..	6 August, 1862.
5. Domett	6 August, 1862 ..	30 October, 1863.
6. Whitaker-Fox..	30 October, 1863 ..	24 November, 1864.
7. Weld	24 November, 1864	16 October, 1865.
8. Stafford	16 October, 1865 ..	28 June, 1869.
9. Fox	28 June, 1869 ..	10 September, 1872.
10. Stafford	10 September, 1872	11 October, 1872.
11. Waterhouse	11 October, 1872 ..	3 March, 1873.
12. Fox	3 March, 1873 ..	8 April, 1873.
13. Vogel	8 April, 1873 ..	6 July, 1875.
14. Pollen	6 July, 1875 ..	15 February, 1876
15. Vogel	15 February, 1876	1 September, 1876.

SUCCESSIVE MINISTRIES—*continued.*

Name of Ministry.	Assumed Office.	Retired.
16. Atkinson	1 September, 1876	13 September, 1876.
17. Atkinson (reconstituted)	13 September, 1876	13 October, 1877.
18. Grey	15 October, 1877	8 October, 1879.
19. Hall	8 October, 1879	21 April, 1882.
20. Whitaker	21 April, 1882	25 September, 1883.
21. Atkinson	25 September, 1883	16 August, 1884.
22. Stout-Vogel	16 August, 1884	28 August, 1884.
23. Atkinson	28 August, 1884	3 September, 1884.
24. Stout-Vogel	3 September, 1884	8 October, 1887.
25. Atkinson	8 October, 1887	24 January, 1891.
26. Ballance	24 January, 1891	1 May, 1893.*
27. Seddon	1 May, 1893.	

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* Owing to the death of the Premier, the Hon. J. Ballance, on 27th April, 1893.

PREMIERS OF SUCCESSIVE MINISTRIES.

Name of Premier.	Name of Premier.
Henry Sewell.	Sir Julius Vogel, K.C.M.G.
William Fox.	Harry Albert Atkinson.
Edward William Stafford.	Harry Albert Atkinson (Ministry reconstituted).
William Fox.	Sir George Grey, K.C.B.
Alfred Domett.	Hon. John Hall.
Frederick Whitaker.	Frederick Whitaker, M.L.C.
Frederick Aloysius Weld.	Harry Albert Atkinson.
Edward William Stafford.	Robert Stout.
William Fox.	Harry Albert Atkinson.
Hon. Edward William Stafford.	Sir Robert Stout, K.C.M.G.
George Marsden Waterhouse.	Sir Harry Albert Atkinson, K.C.M.G.
Hon. William Fox.	John Ballance.
Hon. Julius Vogel, C.M.G.	Rt. Hon. Richard John Seddon, P.C.
Daniel Pollen, M.L.C.	

SPEAKERS OF THE LEGISLATIVE COUNCIL,

WITH DATES OF THEIR APPOINTMENT AND DATES OF RETIREMENT OR DEATH.

Name of Speaker.	Date of Appointment.	Date of Retirement or Death.
Hon. William Swainson	16 May, 1854	8 August, 1855.
Hon. Frederick Whitaker	8 August, 1855	12 May, 1856.
Hon. Thomas Houghton Bartley	12 May, 1856	1 July, 1868.
Hon. Sir John Larkins Cheese Richardson, Kt.	1 July, 1868	14 June, 1879.
Hon. Sir William Fitzherbert, K.C.M.G.	14 June, 1879	23 January, 1891.
Hon. Sir Harry Albert Atkinson, K.C.M.G.	23 January, 1891	28 June, 1892.
Hon. Henry John Miller	8 July, 1892. 6 October, 1897.	

SPEAKERS OF THE HOUSE OF REPRESENTATIVES,

With Dates of their Election and Dates of Retirement.

Name of Speaker.	Date of Election.	Date of Retirement.
Sir Charles Clifford, Bart.	26 May, 1854	
	15 April, 1856	3 June, 1861.
Sir David Monro, Kt. Bach.	3 June, 1861	
	30 June, 1866	13 Sept., 1870.
Sir Francis Dillon Bell, K.C.M.G., C.B.	14 August, 1871	21 October, 1875.
Sir William Fitzherbert, K.C.M.G.	15 June, 1876	13 June, 1879.
Sir George Maurice O'Rorke, Kt. Bach.	11 July, 1879	
	24 September, 1879	
	18 May, 1882	
	7 August, 1884	
	6 October, 1887	3 October, 1890.
Hon. Major William Jukes Steward	23 January, 1891	8 November, 1893.
Hon. Sir George Maurice O'Rorke, Kt. Bach.	21 June, 1894	
	6 April, 1897.	

FOREIGN CONSULS.

Consuls of Foreign Countries residing in, or with Jurisdiction over, New Zealand, April, 1900.

Country represented.	Office held.	Name.	Place of Residence.
Austria-Hungary	Consul	E. Langguth	Auckland.
"	" Acting	Carl Seegner	"
Belgium	Consul-General	Edouard Pollet	Melbourne.
"	Consul	Charles John Johnston	Wellington.
"	"	Joseph James Kinsey	Christchurch.
"	"	John Burns	Auckland.
"	"	Hon. Richard Oliver, M.L.C.	Dunedin.
Chili	"	William Brown	Sydney.
Denmark	Consul (for North Island); Chief Consular Officer in New Zealand	Eduard Valdemar Johansen	Auckland.
"	Consul (for South Island)	Emil Christian Skog	Christchurch.
"	Vice Consul	Francis Henry Dillon Bell	Wellington.
"	"	William Perry	Hokitika.
"	"	A. G. Fenwick	Dunedin.
France	Consul (for New Zealand)	Count Louis Antoine Marie Joseph Henri De Courte	Wellington.
"	Consular Agent	George Humphreys	Christchurch.
"	"	George Dunnet	Auckland.
"	"	Percival Clay Neill	Dunedin.
German Empire	Consul-General	— Kempermann	Sydney.
"	Consul	Bendix Hallenstein	Dunedin.
"	" Acting	Willi Fels	"
"	"	Philip Kippenberger	Christchurch.
"	"	Friedrich August Krull	Wanganui.
"	"	Carl Seegner	Auckland.
"	Vice-Consul	Eberhard Focke	Wellington.

FOREIGN CONSULS—*continued.*

Country represented.	Office held.	Name.	Place of Residence.
Hawaiian Islands	Consul-General (for Australasia)	W. E. Dixon	Sydney.
„	Consul	(Vacant)	Dunedin.
„	„ Acting	George Dunnet	Auckland.
Italy	Consul-General (in Australia)	Commendatore P. Corte	Melbourne.
„	Consular Agent	(Vacant)	Christchurch.
„	„	George Fisher	Wellington.
„	„	Edward Bowes Cargill	Dunedin.
„	„	Geraldo Giuseppe Perotti	Greymouth.
„	„	R. Rose (acting)	Auckland.
Japan	Consul	A. S. Aldrich	Wellington.
Netherlands	Consul-General	W. W. Bosschart	Melbourne.
„	Consul	Charles John Johnston	Wellington.
„	Vice-Consul	Edward Bowes Cargill	Dunedin.
„	„	Ambrose Millar	Auckland.
„	„	Harold Featherston Johnston	Wellington.
Portugal	Consul	John Duncan	„
„	Vice-Consul	Henry Rees George	Auckland.
„	„	Charles William Rattray	Dunedin.
Russia	Consul	Baron d'Ungern-Sternberg	Melbourne.
Spain	Vice-Consul	(Vacant)	Christchurch.
„	Acting	Thomas Jamieson	„
„	Honorary Vice-Consul	Alexander H. Turnbull	Wellington.
Sweden and Norway	Consul	Arthur Edward Pearce	Wellington.
„	Vice-Consul	Eduard Valdemar Johansen	Auckland.
„	„	Frank Graham	Christchurch.
United States	Consul (for New Zealand)	Frank Dillingham	Auckland.
„	Vice-Consul	Leonard A. Bachelder	Auckland.
„	Consular Agent	Robert Pitcaithley	Christchurch.
„	„	John Duncan	Wellington.

AGENT-GENERAL FOR NEW ZEALAND IN LONDON.

The Hon. W. P. Reeves, Westminster Chambers, 13, Victoria Street, S.W. Secretary—Walter Kennaway, C.M.G.

THE COLONIAL OFFICE.

APRIL, 1900.

(DOWNING STREET, S.W., LONDON), WITH DATES OF APPOINTMENT.

Principal Secretary of State for the Colonies—The Right Hon. Joseph Chamberlain, M.P., 28th June, 1895.

Under-Secretaries: Parliamentary—The Right Hon. the Earl of Selborne, 28th June, 1895. Permanent—Sir Edward Wingfield, K.C.B., B.C.L., 1st March, 1897.

Assistant Under-Secretaries: Frederick Graham, 1st March, 1897; Charles P. Lucas; H. B. Cox (Legal); and Reginald L. Antrobus, C.B.

CROWN AGENTS FOR THE COLONIES.

DOWNING STREET, S.W. CITY OFFICE: 1, TOKENHOUSE BUILDINGS, E.C., LONDON.

Crown Agents—Sir Montagu Frederick Ommanney, K.C.M.G., Ernest Edward Blake, and Major Maurice Alexander Cameron, R.E.

HONOURS HELD BY COLONISTS.

Buller, Sir Walter Lawry, F.R.S., C.M.G., 1875; K.C.M.G., 1886.
Grace, Hon. Morgan Stanislaus, C.M.G., 1890.
Gresson, Hon. H.B., 1877.
Hall, Hon. Sir John, K.C.M.G., 1882.
Hector, Sir James, F.R.S., C.M.G., 1875; K.C.M.G., 1887.
Kennaway, Walter, Esq., C.M.G., 1897.
O'Rorke, Hon. Sir George Maurice, Knt. Bach., 1880.
Perceval, Sir Westby Brook, K.C.M.G, 1894.
Prendergast, Sir James, Knt. Bach., 1881.
Richardson, Hon. Edward, C.M.G., 1879.
Roberts, John, Esq., C.M.G., 1891.
Seddon, Right Hon. Richard John, P.C., 1897.
Stafford, Hon. Sir Edward William, K.C.M.G., 1879; G.C.M.G., 1887.
Stout, Hon. Sir Robert, K.C.M.G., 1886.
Whitmore, Hon. Colonel Sir George Stoddart, C.M.G., 1869; K.C.M.G., 1882.

PERSONS ALLOWED TO RETAIN THE TITLE OF "HONOURABLE" WITHIN HER MAJESTY'S DOMINIONS.

By despatch from the Secretary of State for the Colonies, dated Downing Street, 15th June, 1893, His Excellency the Governor was apprised that the title of "Honourable," appertaining to Members of the Executive and Legislative Councils in colonies possessing Responsible Government, whether confined to duration of office or continued for life, is approved by Her Majesty for use and recognition throughout her dominions, either during office or for life, as the case may be.

By further despatch of 10th March, 1894, the Secretary of State announces that he is prepared in future to submit for the approval of the Queen the recommendation of the Governor of any colony having Responsible Government that the President of the Legislative Council or the Speaker of the Legislative Assembly may, on quitting office after three years' service in their respective offices, be permitted to retain the title of "Honourable." This title is now held by Sir G. M. O'Rorke and Major William Jukes Steward.

Besides the Members of the Executive and Legislative Councils, the following ex-Ministers whose names do not appear in the list given above are allowed, as such, to retain the title of "Honourable": Bryce, John, 1884; Fergus, Thomas, 1891; Haultain, Colonel T. M., 1870; Hislop, Thomas W., 1891; Johnston, Walter W., 1884; Mitchelson, Edwin, 1891; Oliver, Richard, 1884; Reeves, William P., 1896; Richardson, George F., 1891; Rolleston, William, 1884; Tole, Joseph A., 1888; Ward, Joseph George, 1896.

[Inset, see page 27.]

ALTERATIONS TO DATE (AUGUST, 1900).

By a statute passed in August, 1900, which has been reserved for Her Majesty's assent, the Governor's allowance on account of his establishment is fixed at £1,500, and for travelling expenses at £500 per annum. This allowance is not payable for any period during which the Governor is absent from the colony.

By another statute the annual appropriation for Ministers' salaries is fixed at the sum of £8,900, of which £1,600 is for the Prime Minister, £1,300 for the Minister for Railways, and £1,000 for each of six other Ministers. All Ministers to whom salaries are appropriated are members of the Executive Council, holding one or more of the offices specified by law. Members of the Executive Council travelling within the colony on public service are entitled to allowance not exceeding one pound ten shillings per day when so engaged, but not during the time a Minister is attending a session of the General Assembly.

The Executive Council now consists of:—

HIS EXCELLENCY THE GOVERNOR presiding.

Right Honourable RICHARD JOHN SEDDON, P.C., Prime Minister, Colonial Treasurer, Commissioner of Trade and Customs, Minister of Labour, and Minister of Defence.

Honourable JOSEPH GEORGE WARD, Minister for Railways, Colonial Secretary, Postmaster-General and Commissioner of Electric Telegraphs, and Minister of Industries and Commerce.

Honourable JAMES CARROLL, Native Minister and Commissioner of Stamp Duties.

Honourable WILLIAM CAMPBELL WALKER, Minister of Education and Minister of Immigration.

Honourable WILLIAM HALL-JONES, Minister for Public Works.

Honourable JAMES McGOWAN, Minister of Justice and Minister for Mines. (23rd January, 1900.)

Honourable THOMAS YOUNG DUNCAN, Minister of Lands and Minister for Agriculture. (2nd July, 1900.)

(Vacant) Attorney-General.

(Vacant) Minister for Public Health.

Honourable ALFRED JEROME CADMAN, Member of Executive Council without Portfolio.

Clerk of the Executive Council—ALEXANDER JAMES WILLIS.

GOVERNOR OF NEW ZEALAND.

Ranfurly, His Excellency The Right Honourable Sir Uchter John Mark, fifth Earl of (Ireland, 1831), Viscount Northland (1791), Baron Welles (1781), Lord-in-Waiting to Her Majesty (1895–1897), Knight Commander of the Most Distinguished Order of Saint Michael and Saint George; Knight of Justice and Member of the Council of the Order of St. John of Jerusalem; son of third earl, brother of fourth earl; born 14th August, 1856; succeeded 1875; married, 1880, The Honourable Constance Elizabeth, only child of seventh Viscount Charlemont, C.B. Living issue: One son (Viscount Northland), two daughters (Ladies Constance and Eileen Knox). Appointed 6th April, 1897, and assumed office 10th August, 1897, as Governor and Commander-in-Chief in and over Her Majesty's Colony of New Zealand and its Dependencies. Salary, £5,000. Residences: Northland House, Dungannon, Ireland; Government House, Wellington; Government House, Auckland.

Private Secretary and Aide-de-Camp: Dudley Alexander (Captain, "The Prince of Wales's Own"—West Yorkshire—Regiment).

Assistant Private Secretary: The Honourable Charles Edward Hill-Trevor.

ADMINISTRATOR OF THE GOVERNMENT.—The Chief Justice holds a dormant commission.

EXECUTIVE COUNCIL.

23RD JANUARY, 1900.

His Excellency the GOVERNOR presides.

Rt. Hon. R. J. Seddon, P.C., LL.D., Premier, Colonial Treasurer, Commissioner of Trade and Customs, Minister of Labour, and Minister of Defence.

Hon. J. McKenzie, Minister of Lands, Minister for Agriculture, and Commissioner of Forests.

Hon. J. Carroll, Minister of Native Affairs and Commissioner of Stamp Duties.

Hon. W. C. Walker, Minister of Education and Minister of Immigration.

Hon. W. Hall-Jones, Minister for Public Works and Minister of Marine.

Hon. J. G. Ward, Colonial Secretary, Postmaster-General, Electric Telegraph Commissioner, Minister of Industries and Commerce, and Minister for Railways.

Hon. J. McGowan, Minister of Justice and Minister of Mines. (23rd January, 1900).

Hon. A. J. Cadman, Member of Executive Council.

Clerk of Executive Council—Alexander James Willis.

THE GENERAL ASSEMBLY.

LEGISLATIVE COUNCIL.

The number of members at present constituting the Legislative Council is forty-five. The number cannot be less than ten, but is otherwise unlimited. Prior to 1891 Councillors summoned by the Governor held their appointments for life; but on the 17th of September of that year an Act was passed giving the Council power to elect its own Speaker for a period of five years, and making future appointments to the Council tenable for seven years only, to be reckoned from the date of the writ of summons of the Councillor's appointment, though every such Councillor may be reappointed. The qualifications are that the person to be appointed be of the full age of twenty-one years, and a subject of Her Majesty, either natural-born or naturalised by or under any Act of the Imperial Parliament or by or under any Act of the General Assembly of New Zealand. All contractors to the public service to an amount of over £50 and Civil servants of the colony are ineligible as Councillors. Payment of Councillors is at the rate of £150 a year, payable monthly. Actual travelling-expenses to and from Wellington are also allowed. A deduction of £1 5s. per sitting day is made in case of an absence, except through illness or other unavoidable cause, exceeding five sitting days in any one session. Under "The Legislative Council Act, 1891," a seat is vacated by any member of the Council: (1.) If he takes any oath or makes any declaration or acknowledgment of allegiance, obedience, or adherence to any foreign Prince or Power; or (2), if he does, or concurs in, or adopts any act whereby he may become a subject or citizen of any foreign State or Power, or is entitled to the rights, privileges, or immunities of a subject of any foreign State or Power; or (3), if he is a bankrupt, or compounds with his creditors under any Act for the time being in force; or (4), if he is a public defaulter, or is attainted of treason, or is convicted of felony or any infamous crime; or (5), if he resigns his seat by writing under his hand addressed to and accepted by the Governor; or (6), if for more than one whole session of the General Assembly he fails, without permission of the Governor notified to the Council, to give his attendance in the Council. By the Standing Orders of the Council, the presence of one-fourth of the members of the Council, exclusive of those who have leave of absence, is necessary to constitute a meeting for the exercise of its powers. This rule, however, may be altered from time to time by the Council. The ordinary sitting-days are Tuesdays, Wednesdays, Thursdays, and Fridays, from 2.30 p.m. to 5 p.m., resuming again at 7.30 when necessary.

Roll of Members of the Honourable the Legislative Council of New Zealand.

(April, 1900.)

Speaker—The Hon. Henry John Miller.

Chairman of Committees—The Hon. William Douglas Hall Baillie.

Name.	Provincial District.	Date of Appointment.
Arkwright, the Hon. Francis	Wellington	13 December, 1895.
Baillie, the Hon. William Douglas Hall	Marlborough	8 March, 1861.
Barnicoat, the Hon. John Wallis	Nelson	14 May, 1883.
Bolt, the Hon. William Mouat	Otago	15 October, 1892.*
Bonar, the Hon. James Alexander	Westland	27 June, 1868.
Bowen, the Hon. Charles Christopher	Canterbury	20 January, 1891.
Cadman, the Hon. Alfred Jerome	Auckland	21 December, 1899.
Feldwick, the Hon. Henry	Otago	15 October, 1892.*
Fraser, the Hon. Francis Humphris	Wellington	22 June, 1899.
Gourley, the Hon. Hugh	Dunedin	22 June, 1899.
Grace, the Hon. Morgan Stanislaus, C.M.G.	Wellington	13 May, 1870.
Harris, the Hon. Benjamin	Auckland	3 February, 1897.
Holmes, the Hon. Mathew	Otago	19 June, 1866.
Jenkinson, the Hon. John Edward	Canterbury	6 June, 1893.
Jennings, the Hon. William Thomas	Auckland	15 October, 1892.*
Johnston, the Hon. Charles John	Wellington	20 January, 1891.
Jones, the Hon. George	Otago	13 December, 1895.
Kelly, the Hon. Thomas	Taranaki	15 October, 1892.*
Kelly, the Hon. William	Auckland	3 February, 1897.
Kenny, the Hon. Courtney William Aylmer Thomas	Marlborough	15 May, 1885.
Kerr, the Hon. James	Westland	15 October, 1892.*
McLean, the Hon. George	Otago	19 December, 1881.
Miller, the Hon. Henry John (Speaker)	Otago	8 July, 1865.
Montgomery, the Hon. William	Canterbury	15 October, 1892.*
Morris, the Hon. George Benthâm	Auckland	15 May, 1885.
Oliver, the Hon. Richard	Otago	10 November, 1881.
Ormond, the Hon. John Davies	Hawke's Bay	20 January, 1891.
Peacock, the Hon. John Thomas	Canterbury	9 October, 1877.
Pinkerton, the Hon. David	Otago	3 February, 1897.
Pitt, the Hon. Albert, Lieut.-Colonel	Nelson	23 December, 1899.
Reeves, the Hon. Richard Harman Jeffares	Nelson	13 December, 1895.
Rigg, the Hon. John	Wellington	6 June, 1893.
Scotland, the Hon. Henry	Taranaki	24 February, 1868.
Shrimski, the Hon. Samuel Edward	Otago	15 May, 1885.
Smith, the Hon. Alfred Lee	Otago	18 June, 1898.
Smith, the Hon. William Cowper	Hawke's Bay	13 December. 1895.
Stevens, the Hon. Edward Cephas John	Canterbury	7 March, 1882.
Swanson, the Hon. William	Auckland	15 May, 1885.
Taiaroa, the Hon. Hori Kerei	Otago	15 May, 1885.
Tomoana, the Hon. Henare	Hawke's Bay	24 June, 1898.
Twomey, the Hon. Jeremiah Matthew	Otago	18 June, 1898.
Walker, the Hon. Lancelot	Canterbury	15 May, 1885.

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* Reappointed, 16th October, 1899.

ROLL OF MEMBERS OF THE LEGISLATIVE COUNCIL—*continued.*

Name.	Provincial District.	Date of Appointment.
Walker, the Hon. William Campbell ..	Canterbury ..	15 October, 1892.*
Whitmore, the Hon. Sir George Stoddart, K.C.M.G.	Hawke's Bay	31 August, 1863.
Williams, the Hon. Henry	Auckland ..	7 March, 1882.

* Reappointed, 14th October, 1899.

Clerk of Parliaments, Clerk of the Legislative Council, and Examiner of Standing Orders upon Private Bills—Leonard Stowe.

Clerk-Assistant—Arthur Thomas Bothamley.

Second Clerk-Assistant—George Moore.

Interpreter—Henry S. Hadfield.

HOUSE OF REPRESENTATIVES.

The number of members constituting the House of Representatives is seventy-four—seventy Europeans and four Maoris. This number was fixed by the Act of 1887, which came for the first time into practical operation at the general election of 1890. Previously (from 1881) the House consisted of ninety-five members—ninety-one Europeans and four Maoris. The North Island returns thirty-four European members, and the Middle Island thirty-six. The Cities of Auckland, Wellington, Christchurch, and Dunedin return each three members, and all other electoral districts one each. The elections are triennial, except in the case of a dissolution by the Governor. Every registered elector, being of the male sex, and free from any of the disqualifications mentioned in section 8 of "The Electoral Act, 1893," is eligible for membership. All contractors to the public service of New Zealand to whom any public money above the sum of £50 is payable, directly or indirectly, in any one financial year, as well as the Civil servants of the colony, are incapable of being elected as, or of sitting or voting as, members. The payment made to members of the House of Representatives is £20 per month, amounting to £240 per annum. £2 for every sitting-day exceeding five is deducted on account of absence during session not due to sickness or other unavoidable cause. Travelling-expenses to and from Wellington are also allowed. This scale of payment came into force on the 1st January, 1893, under the provisions of "The Payment of Members Act, 1892." Twenty members, inclusive of the Speaker, constitute a quorum. Unless otherwise ordered, the sitting-days of the House are Tuesdays, Wednesdays, Thursdays, and Fridays, from 2.30 p.m. to 5.30 p.m., resuming at 7.30 p.m. Order of admission to the Speaker's Gallery is by ticket obtained from the Speaker. The Strangers' Gallery is open free to the public.

ROLL OF MEMBERS OF THE HOUSE OF REPRESENTATIVES.
(APRIL, 1900.)

Speaker—

Chairman of Committees—

Name.	Electoral District.	Date of Notification of Return of Writ.
For European Electorates.		
Allen, Edmund Giblett	Waikouaiti	27 December, 1899.
Allen, James	Bruce	„
Arnold, James Frederick	City of Dunedin.	„
Atkinson, Arthur Richmond	City of Wellington	„
Barclay, Alfred Richard	City of Dunedin	„
Bennet, James	Tuapeka	„
Bollard, John	Eden	„
Buddo, David	Kaiapoi	„
Carncross, Walter Charles Frederick	Taieri	„
Carroll, Hon. James	Waiapu	„
Collins, William Whitehouse	City of Christchurch	„
Colvin, James	Buller	„
Duncan, Thomas Young	Oamaru	„
Ell, Henry George	City of Christchurch	„
Field, William Hughes[*]	Otaki	11 January, 1900.
Fisher, George	City of Wellington	27 December, 1899.
Flatman, Frederick Robert	Geraldine	„
Fowlds, George	City of Auckland	„
Fraser, Alfred Levavasour Durell	Napier	„
Fraser, William	Wakatipu	„
Gilfedder, Michael	Wallace	„
Graham, John	City of Nelson	„
Guinness, Arthur Robert	Grey	„
Hall, Charles	Waipawa	„
Hall-Jones, Hon. William	Timaru	„
Hanan, Josiah Alfred	Invercargill	„
Hardy, Charles Albert Creery	Selwyn	„
Herries, William Herbert	Bay of Plenty	„
Hogg, Alexander Wilson	Masterton	„
Hornsby, John Thomas Marryat	Wairarapa	„
Houston, Robert Morrow	Bay of Islands	„
Hutcheson, John	City of Wellington	„
Hutchison, George	Patea	„
Lang, Frederic William	Waikato	„
Laurenson, George	Lyttelton	„
Lawry, Frank	Parnell	„
Lethbridge, Frank Yates	Rangitikei	„
Lewis, Charles	City of Christchurch	„
McGowan, Hon. James	Thames	„
McGuire, Felix	Hawera	„
McKenzie, Hon. John	Waihemo	„
McKenzie, Roderick	Motueka	„
McLachlan, John	Ashburton	„
McNab, Robert	Mataura	„
Massey, William Ferguson	Franklin	„
Meredith, Richard	Ashley	„

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[*] H. A. Field elected 6th December, 1899; died 10th December, 1899.

ROLL OF MEMBERS OF THE HOUSE OF REPRESENTATIVES—*continued.*

Name.	Electoral District.	Date of Notification of Return of Writ.
For European Electorates – contd.		
Millar, John Andrew	City of Dunedin ..	27 December, 1899.
Mills, Charles Houghton.. ..	Wairau	"
Monk, Richard	Waitemata ..	"
Morrison, Arthur	Caversham ..	"
Napier, William Joseph	City of Auckland ..	"
O'Meara, John	Pahiatua ..	"
O'Rorke, Sir George Maurice, Kt...	Manukau ..	"
Palmer, Jackson	Ohinemuri ..	"
Pirani, Frederick	Palmerston ..	"
Rhodes, Robert Heaton	Ellesmere ..	"
Russell, George Warren	Riccarton ..	"
Russell, William Russell ..	Hawke's Bay ..	"
Seddon, Rt. Hon. Richard John, P.C.	Westland ..	"
Smith, Edward Metcalf	Taranaki	"
Stevens, John	Manawatu ..	"
Steward, Hon. William Jukes ..	Waitaki	"
Symes, Walter	Egmont .. .	"
Tanner, William Wilcox.. ..	Avon	"
Thompson, Robert	Marsden	"
Thomson, James William ..	Clutha	"
Ward, Hon. Joseph George ..	Awarua	"
Wilford, Thomas Mason	Suburbs of Well'gton	"
Willis, Archibald Dudingston ..	Wanganui ..	"
Witheford, Joseph Howard* ..	City of Auckland ..	27 April, 1900.†
For Maori Electorates.		*Day of Election.*
Heke, Hone	Northern Maori ..	19 December, 1899.
Kaihau, Henare	Western Maori ..	"
Parata, Tame	Southern Maori ..	"
Pere, Wi	Eastern Maori ..	"

Clerk of House of Representatives—H. Otterson.

Clerk-Assistant—A. J. Rutherfurd.

Second Clerk-Assistant—A. F. Lowe.

Sergeant-at-Arms—W. Fraser.

Reader and Clerk of Bills and Papers—E. W. Kane.

Chief *Hansard* Reporter—J. Grattan Grey.

Interpreters—L. M. Grace, W. E. Goff.

Clerk of Writs—H. Pollen.

Deputy Clerk of Writs— ———.

Acting Librarian—H. L. James, B.A.

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* W. Crowther elected 6th December, 1899; died 14th March, 1900.
† Date of election.

OFFICIAL LIST.

[12th April, 1900.]

PREMIER'S OFFICE.

Premier—Rt. Hon. R. J. Seddon, P.C.
Secretary to Cabinet—A. J. Willis

COLONIAL SECRETARY'S DEPARTMENT.

Chief Office.

Colonial Secretary—Hon. J. G. Ward
Under-Secretary—Hugh Pollen
Chief Clerk—R. F. Lynch
Clerks—J. F. Andrews, L. W. Loveday
Officer in Charge of Government Buildings—W. H. Hennah

Audit Office.

Controller and Auditor-General—J. K. Warburton.
Assistant Controller and Auditor—J. C. Gavin
Chief Clerk—L. C. Roskruge
Clerks—W. Dodd, H. S. Pollen, W. G. Holdsworth, E. J. A. Stevenson, C. M. Georgeson, J. H. Fowler, J. Skerrett
Cadette—E. A. Casey
Extra Clerks—D. C. Innes, J. Swift, A. E. Bybles, J. Ward, A. A. Bethune, B. A. Meek, C. E. Briggs, A. Simpson, E. E. Smythe
Audit Officer, Agent-General's Office, London—C. F. W. Palliser
Audit Inspectors—P. P. Webb, A. H. Maclean, J. King, A. W. Eames, E. T. Greville, G. H. I. Easton, C. P. Johnson, J. T. Dumbell, W. H. Carlyle, H. A. Lamb

Registrar-General's Office.

Registrar-General—E. J. Von Dadelszen
Chief Clerk and Deputy Registrar-General—G. Drury
Clerks—F. H. Machattie, W. W. Cook, S. Coffey
Cadet—Ben Keys

Registrars of Births, Deaths, and Marriages.

Four Chief Towns.

Auckland—E. H. Lyons
Wellington—F. W. Mansfield
Christchurch—J. W. Parkerson
Dunedin—W. J. Hall

Printing and Stationery Department.

Government Printer, Stationery Office Manager, and Controller of Stamp Printing—John Mackay
Superintending Overseer—J. Burns
Chief Clerk and Accountant—B. B. Allen
Clerk and Computer—N. B. K. Manley
Clerks — F. Barraud, J. W. Hall, R. Watts, A. Stace, A. Williams
Cadet—R. A. Gray
Hansard Supervisor—M. F. Marks
Overseers—J. J. Gamble, B. Wilson
Sub-overseer, Jobbing-room—G. Tattle
Overseer, Machine-room—
Overseer, Binding Branch—W. Franklin
Sub-overseer, Binding Branch — G. H. Broad
Night Foreman—J. F. Rogers
Stamp Printer—H. Hume
Stereotyper and Electrotyper—W. J. Kirk
Readers—W. Fuller, H. S. Mountier
Forewoman, Binding Branch — Miss O'Malley
Engineer—T. R. Barrer

COLONIAL TREASURER'S DEPARTMENT.

Chief Office.

Colonial Treasurer—Rt. Hon. R. J. Seddon, P.C.
Secretary to the Treasury, Receiver-General, Paymaster-General, and Registrar of Consols — James B. Heywood

Accountant to the Treasury—Robert J. Collins
Cashier—C. E. Chittey
Corresponding Clerk—H. Blundell
Clerks—C. Meacham, R. B. Vincent, W. E. Cooper, J. Driscoll, E. L. Mowbray, A. O. Gibbes, J. Holmes, J. Eman Smith, H. N. W. Church, T. H. Burnett, J. Radcliffe, A. J. Morgan, T. J. Davis, F. H. Tuckey, W. Wilson
Cadets—G. A. Fraser, E. J. Fitzgibbon
Cadettes—L. McIntosh, E. Fisher
Officer for Payment of Imperial Pensions at Auckland—B. J. Daveney

FRIENDLY SOCIETIES' AND TRADE UNIONS' REGISTRY OFFICE; ALSO OFFICE OF THE REGISTRAR UNDER THE INDUSTRIAL CONCILIATION AND ARBITRATION ACT.

Registrar—E. Mason
Revising Barrister for Friendly Societies and Trade Unions—L. G. Reid
Clerk—C. T. Benzoni

OLD-AGE PENSIONS OFFICE.

Registrar—E. Mason
Deputy Registrars—
  Auckland—John King, Registrar of Electors
  Wellington—F. W. Mansfield, Registrar of Births, &c.
  Christchurch—L. C. Williams, Registrar of Electors
  Dunedin—James Taylor, Deputy Registrar of Births, &c.
(In all other Pension Districts Clerks of the Magistrates' Courts are the Deputy Registrars)

LAND AND INCOME TAX DEPARTMENT.

Commissioner—John McGowan
Deputy Commissioner—G. F. C. Campbell
Chief Clerk—F. J. M. D. Walmsley
Accountant—P. Heyes
Clerks—A. J. McGowan, H. Nancarrow, J. M. King, W. M. Tyers, G. W. Jänisch, J. W. Black, D. R. Purdie, C. V. Kreeft, D. G. Clark, J. Stevenson, J. R. Smyth, R. Hepworth
Cadets—E. Panting, C. E. J. Dowland, C. J. Lovatt

DEPARTMENT OF JUSTICE.

HEAD OFFICE.

Minister of Justice—Hon. Jas. McGowan
Under-Secretary—F. Waldegrave
Translator—G. H. Davies
Clerks—C. B. Jordan, C. E. Matthews, W. D. Anderson, G. F. Dixon

CROWN LAW OFFICE.

Attorney-General—(vacant)
Solicitor-General—W. S. Reid
Assistant Law Officer—L. G. Reid
Law Draftsman — F. Fitchett, M.A., LL.D.
Clerk—E. Y. Redward

PATENT OFFICE.

Registrar of Patents, Designs, and Trade-marks—F. Waldegrave
Deputy Registrar—J. C. Lewis
Clerks—W. J. Organ, Mary Eyre

JUDICIAL.

Supreme Court Judges.

Chief Justice—
  Wellington—Sir R. Stout, K.C.M.G.
Puisne Judges—
  Wellington—W. B. Edwards
  Auckland—E. T. Conolly
  Christchurch—J. E. Denniston (on leave)
  Christchurch—J. C. Martin (Acting)
  Dunedin—J. S. Williams

District Court Judges.

Wairarapa, Wanganui, New Plymouth, Hawera, and Palmerston North—C. C. Kettle
Nelson—H. W. Robinson
Ashburton, Timaru, Oamaru, Queenstown, Naseby, Lawrence, Invercargill, Hokitika, Greymouth, Westport, Reefton, and Kumara—C. D. R. Ward

Registrars of the Supreme Court.

Auckland—H. C. Brewer
New Plymouth—R. L. Stanford
Wanganui—C. C. Kettle
Napier—A. Turnbull
Gisborne—W. A. Barton
Wellington—D. G. A. Cooper
Nelson—H. W. Robinson
Blenheim—J. Allen
Christchurch—A. R. Bloxam
Hokitika—V. G. Day
Dunedin—C. McK. Gordon
Invercargill—F. G. Morgan

Sheriffs.

Auckland—H. C. Brewer
Taranaki—A. H. Holmes
Hawke's Bay—A. Turnbull
Poverty Bay—W. A. Barton
Wellington—D. G. A. Cooper
Wairarapa—E. Rawson
Wanganui and Rangitikei—A. D. Thomson
Nelson—W. Heaps
Westland North—E. C. Kelling
Central Westland—H. Lucas
Marlborough—J. B. Stoney
Canterbury—A. R. Bloxam
Timaru—C. A. Wray
Westland—V. G. Day
Otago—C. McK. Gordon
Southland—J. R. Colyer

Crown Solicitors.

Auckland—Hon. J. A. Tole
New Plymouth—A. Standish
Gisborne—J. W. Nolan
Napier—A. J. Cotterill
Wellington—H. Gully
Wanganui—S. T. Fitzherbert
Nelson—C. Y. Fell
Blenheim—R. McCallum
Christchurch—T. W. Stringer
Timaru—J. W. White
Dunedin—J. F. M. Fraser
Invercargill—T. M. Macdonald
Oamaru—A. G. Creagh

Crown Prosecutors (District Courts).

New Plymouth—A. Standish
Hawera—E. L. Barton
Wanganui and Palmerston North—S. T. Fitzherbert
Masterton—A. R. Bunny
Nelson—C. Y. Fell
Westport and Reefton—C. E. Harden
Hokitika—J. Park
Greymouth—
Timaru—J. W. White
Oamaru—A. G. Creagh
Queenstown—Wesley Turton
Invercargill—T. M. Macdonald

Stipendiary Magistrates.

Auckland—H. W. Brabant
Pokeno, Waikato, &c.—T. Jackson
Onehunga, &c.—T. Hutchison*
Russell, &c.—E. C. Blomfield
Tauranga, &c.—J. M. Roberts*
Thames, &c.—R. S. Bush*
Gisborne, &c.—J. Booth
New Plymouth—R. L. Stanford
Hawera, &c.—H. Eyre-Kenny
Wanganui, &c.—C. C. Kettle
Palmerston North, &c.—A. Greenfield
Wellington, &c.—W. R. Haselden
Wairarapa, &c.—H. W. Northcroft
Napier, &c.—A. Turnbull
Nelson—H. W. Robinson*
Motueka, Collingwood, &c. — Wilson Heaps*
Blenheim, &c.—J. Allen*
Christchurch, &c.—R. Beetham
Kaiapoi, &c.—H. W. Bishop
Timaru, &c.—C. A. Wray
Greymouth, Westport, &c. — R. S. Hawkins*
Hokitika, &c.—D. Macfarlane*
Dunedin, &c.—E. H. Carew* and C. C. Graham
Oamaru, &c.—J. Keddell*
Milton, &c.—H. A. Stratford*
Clyde, &c.— S. E. McCarthy.*
Naseby—S. M. Dalgleish*
Invercargill, &c.—
Chatham Islands—R. S. Florance

Official Assignees in Bankruptcy.

Auckland—J. Lawson, J.P.
Wellington—J. Ashcroft, J.P.
Christchurch—G. L. Greenwood
Dunedin—C. C. Graham, S.M.

Clerks of District and Magistrates' Courts.

New Plymouth—A. H. Holmes
Hawera—A. Trimble
Wanganui—A. D. Thomson
Palmerston North—W. Matravers
Masterton—E. Rawson
Nelson—C. H. Webb-Bowen
Hokitika—C. A. Barton
Kumara—J. McEnnis
Greymouth—B. Harper
Westport—E. C. Kelling
Reefton—H. Lucas
Timaru—T. Howley
Ashburton—T. W. Tayler
Oamaru—H. H. G. Ralfe
Invercargill—J. R. Colyer
Queenstown—H. N Firth
Lawrence—A. M. Eyes
Naseby—John Terry

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* Are also Wardens of Goldfields.

Receivers of Gold Revenue, Mining Registrars, and Clerks of Wardens' and Magistrates' Courts.

Thames—J. Jordan
Coromandel—T. M. Lawlor
Paeroa—T. A. Moresby
Te Aroha—D. Banks
Tauranga—
Whangarei—G. M. Robertshaw
Havelock and Cullensville (Marlborough)—H. McArdle
Nelson—C. H. Webb-Bowen
Motueka—H. E. Gilbert
Collingwood—J. T. Foley
Westport—E. C. Kelling
Charleston—T. A. Godfrey
Reefton—H. Lucas
Ahaura—A. Askenbeck
Greymouth—B. Harper
Kumara—J. McEnnis
Hokitika—C. A. Barton
Naseby, &c.—John Terry
Wyndham—D. Bogue
Clyde, Blacks, and Alexandra—F. T. D. Jeffrey
Cromwell—J. Fleming
Queenstown and Arrowtown—H. N. Firth
Lawrence—A. M. Eyes
Riverton—A. G. Ashby

Clerks of Magistrates' Courts.

Auckland—F. J. Burgess
Gisborne—W. A. Barton
Hamilton—T. Kirk
Napier—R. B. Mathias
Hastings—P. Skerrett
Marton, &c.—F. M. Deighton
Wellington—W. P. James
Blenheim—J. B. Stoney
Christchurch—W. Martin
Lyttelton—W. Shanaghan
Kaiapoi—M. Lynskey
Dunedin—W. G. P. O'Callaghan

NATIVE LAND COURT.

Chief Judge—G. B. Davy
Judges—A. Mackay, D. Scannell, R. Ward, H. W. Brabant, W. J. Butler, H. F. Edger, W. G. Mair, H. D. Johnson, J. M. Batham
Registrars—Auckland, J. W. Browne; Gisborne, J. Brooking; Wellington, R. C. Sim

Commissioners of the Native Land Court.

R. S. Bush, J. Booth, A. Turnbull, E. C. Blomfield, T. Jackson, C. C. Kettle, J. M. Roberts, W. Stuart, H. W. Bishop, E. H. Carew, H. E. Kenny, R. L. Stanford, T. Hutchison, H. W. Robinson, R. S. Florance: Sub-commissioners—J. Brooking, W. A. Thom
Government Native Agent, Otorohanga—G. T. Wilkinson

VALIDATION COURT.

Chief Judge—G. B. Davy
Judges—The Judges of the Native Land Court
Registrars—The Registrars of the Native Land Court

CORONERS.

Coroners—Auckland, A. McArthur, H. W. Brabant, T. Hutchison, E. Baker; Akaroa, G. H. Saxton; Blenheim, J. Allen; Christchurch, R. Beetham and H. W. Bishop; Clyde, S. E. McCarthy; Collingwood, E. Davidson; Coromandel, A. R. H. Swindley; Dunedin, E. H. Carew and C. C. Graham; Foxton, E. S. Thynne; Gisborne, J. Booth; Greymouth, R. S. Hawkins; Huntly, T. H. White; Hawera, C. E. Major; Hokitika, D. Macfarlane and R. W. Wade; Invercargill, ; Lawrence, H. A. Stratford; Marton, A. Ross; Masterton, H. W. Northcroft; Napier, A. Turnbull; Naseby, S. M. Dalgleish; Nelson, H. W. Robinson, and L. G. Boor; New Plymouth, R. L. Stanford; Oamaru, J. Keddell; Ohakana, S. Bates; Otahuhu, S. Luke; Otaki, W. H. Simcox; Paeroa, W. Forrest; Palmerston North, A. Greenfield and G. M. Snelson; Pokeno, T. Jackson; Port Albert, L. P. Becroft; Pahi, J. B. Ariell; Queenstown, L. Hotop and S. E. McCarthy; Raglan, W. H. Wallis; Stratford, ; Tauranga, A. C. H. Tovey and J. M. Roberts; Te Awamutu, T. Gresham; Timaru, C. A. Wray; Te Kopuru, T. Webb; Thames, A. Bruce and R. S. Bush; Waimate, E. M. Williams; Waipawa, S. Johnson; Wellington, J. Ashcroft; Wanganui, H. Eyre-Kenny and C. C. Kettle; Whangarei, J. M. Killen; Woodville, E. J. Gothard; Chatham Islands, R. S. Florance

NEW ZEALAND POLICE FORCE.

Head Office.

Commissioner—John Bennett Tunbridge
Clerks—John Evans, John Tasker, William John Mahoney
Cadet—Walter Gollan

Police Department.

Inspectors—Peter Pender, William Stone Pardy, Francis McGovern, John Cullen, John Wybrant Ellison, Robert James Gillies

Sub-Inspectors—Terence O'Brien, Ewen Macdonell, Nicholas Kiely, Edward Wilson, Alfred James Mitchell

Prisons Department.

Inspector—Lieut.-Colonel Arthur Hume, N.Z.M.

Clerk—T. E. Richardson

Gaolers — Auckland, Francis Egerton Severne, Dunedin, Samuel Charles Phillips; Hokitika, Thomas Rosson Pointon, Invercargill, John Henry Bratby; Lyttelton, Matthew Michael Cleary; Napier, Michael Flannery; New Plymouth, Bartholomew Lloyd O'Brien; Wanganui, Robert T. N. Beasley; Wellington, Patrick Samuel Garvey

DEPARTMENT OF INDUSTRIES AND COMMERCE.

Minister—Hon. J. G. Ward

Clerk—A. M. Smith

DEPARTMENT OF LABOUR.

Minister of Labour—Rt. Hon. R. J. Seddon, P.C.

Secretary for Labour and Chief Inspector of Factories—E. Tregear

Chief Clerk—James Mackay

Clerk—F. W. T. Rowley

Cadet – F. A. De la Mare

Shorthand Writer and Typist—J. W. Collins

Inspectors of Factories.

North Island — J. Mackay, J. Shanaghan, H. Ferguson, L. D. Browett, W. J. Blake, Margaret Hawthorne, and 71 local Inspectors

South Island—J. Mackay, J. Shanaghan, J. Lomas, H. Maxwell, W. J. McKeown, Margaret Hawthorne, and 68 local Inspectors

(There are also 200 Bureau Agents in different parts of the colony.)

PUBLIC WORKS DEPARTMENT.

Head Office.

Minister for Public Works—Hon. W. Hall-Jones

Under-Secretary—H. J. H. Blow

Engineer-in-Chief—W. H. Hales

Superintending Engineer—P. S. Hay, M.A., M.Inst.C.E.

Chief Clerk—W. D. Dumbell

Accountant—G. J. Clapham

Land-purchase Officer—H. Thompson

Record Clerk—H. W. H. Millais

Clerks—W. Black, C. T. Rushbrook, E. Horneman, A. Biddell, E. McCarthy, E. Bold, A. R. Stone, P. S. Waldie, N. Jacobs, A. H. Kimbell, P. J. Garvey, A. L. Goldfinch, L. White

Chief Draughtsman—W. G. Rutherford

Architect—J. Campbell

Draughtsmen—T. Perham, E. Jackson, A. Koch, C. F. Napper, W. Withers, E. McC. Blake, W. G. Swan, J. H. Price, P. N. Hunt, G. Bjornstad, C. A. Lawrence, L. I. Richards, A. E. King, T. G. Applegarth

Head Storekeeper—John Young

District Offices.

District Engineers — Auckland, C. R. Vickerman; Dunedin, E. R. Ussher, M.Inst.C.E.

Resident Engineers—Hunterville, G. L. Cook, M.Inst.C.E.; Wellington, R. W. Holmes; Westport, R. A. Young, Assoc. M.I.C.E.; Greymouth, J. Thomson, B.E.; Jackson's, J. A. Wilson; Springfield, W. H. Gavin; Dunedin, W. A. Shain

Assistant Engineers—J. D. Louch, J. J. Hay, M.A., F. M. Hewson, D. Ross, T. Roberts, J. H. Dobson, J. S. Stewart, S. J. Harding, A. E. Barrowclough, F. H. Geisow, C. E. Armstrong, A. Ross, G. C. McGlashan, J. H. Lewis, A. Jack, H. Dickson, J. W. E. McEnnis, F. W. Furkert, J. Meenan, W. A. Jeff

Engineering Cadets—W. Sherratt, C. J. McKenzie, F. P. Bartley, J. J. Wilson

Clerks, Draughtsmen, &c. — C. Wood, A. S. Lewis, W. A. Cumming, P. F. M. Burrows, L. F. Tegnér, J. H. Denton, W. H. Hislop, E. Waddell, G. Glenister, J. C. Fulton, T. Douglas, C. Scholfield, W. E. Butler, J. B. Borton, C. T. Williams, T. J. McCosker, L. P. Cabot, F. E. Banks, W. E. Fitzgerald, L. M. Shera

RAILWAYS DEPARTMENT.

Minister for Railways—Hon. J. G. Ward

General Manager—T. Ronayne

Assistant General Manager—C. Hudson

Chief Clerk—T. W. Waite

Clerks—R. W. McVilly, E. J. Andrews, B. M. Wilson, W. S. Ridler, F. S. Pope, W. Johnston, J. Hislop, J. E. Widdop, P. G. Taylor, A. J. Will, S. S. Millington, D. Sinclair, J. D. Nash

Audit Inspectors—H. Baxter, D. Munro, C. L. Russell

Railway Accountant—A. C. Fife

Clerks—H. Davidson, J. H. Davies, G. G. Wilson, M. C. Rowe, S. P. Curtis, J. McLean, E. Davy, A. Morris, C. Batten, W. B. Fisher, J. Firth, E. J. Fleming, H. H. Leopard, R. J. Loe, W. Bourke, A. J. Belworthy, F. W. Lash, A. H. Hunt, W. E. Ahern, F. K Porteous, T. A. O'Connor, J. W. Dayman, T. S. Hamer, W. H. Simmons

Stores Manager—G. Felton

Clerks—A. M. Heaton, F. J. Dawes, G. H. Norie, G. Bennett, S. Alpe, H. W. Barbor, E. J. Maguiness, R. P. Bray, L. B. Archibald, S. J. H. Dyer, G. B. Cope, J. R. Robertson, C. Brooke, H. D. Vickery, W. G. Caldwell

District Managers—Kaihu, E. E. Gillon; Auckland, A. Grant; Wanganui, H. Buxton; Napier and Wellington, T. E. Donne; Greymouth, C. A. Piper; Nelson, G. E. Richardson; Christchurch, W. H. Gaw; Dunedin, T. Arthur; Invercargill, S. F. Whitcombe

Stationmasters in charge—Kawakawa, R. B. Peat; Whangarei, A. B. Duncan; Westport, T. Hay-Mackenzie; Picton, W. Bowles

Chief Engineer for Working Railways—J. Coom, M.Inst.C.E.

Inspecting Engineer—J. Burnett

Signal Engineer—H. J. Wynne

Railway Land Officer—E. G. H. Mainwaring

Chief Draughtsman—G. A. Troup

Draughtsmen—J. Besant, W. R. B. Bagge, C. T. Jeffreys, Ad. Howitt, L. Reynolds, A. S. Henderson, C. H. Mackie, W. R. Davidson

Clerks—W. P. Hicks, M. Angus, J. T. Ford, W. A. Mirams, H. Jessup, H. W. Rowden, T. M. Lucy, H. H. Gardner, T. H. Wilson, F. J. Rowden, P. J. McGovern, E. D. Richards, A. N. Longton, G. P. Parrell, E. J. Wiseman

District Engineers—Auckland, C. H. Biss; Wanganui, D. T. McIntosh; Wellington, A. C. Koch; Westport, J. D. Harris; Greymouth, H. St. J. Christophers; Christchurch, H. Macandrew; Dunedin, F. W. MacLean; Invercargill, A. J. McCredie

Locomotive Superintendent—T. F. Rotheram

Clerks—R. Triggs, R. Aekins, P. A. Buck, C. G. Edwards, G. G. Haldane, J. Rumgay, W. B. Sinclair, W. A. Wellings, C. H. Virtue, H. McKeowen, C. M. Hill, E. J. Guthrie, G. H. Reynolds, N. P. G. Ewart, C. L. Pettit, E. R. Roskruge, A. Beaton, E. Hagenson

Chief Draughtsman—G. A. Pearson

Draughtsmen—R. Pye-Smith, W. A. Palmer, R. Eagle

Locomotive Engineers—Auckland, A. V. Macdonald; Wanganui-Napier, H. H. Jackson; Wellington, T. A. Peterkin; Hurunui-Bluff, A. L. Beattie; Relieving, J. H. Fox

BOARD OF APPEAL.

North Island.

H. Eyre Kenny, Stipendiary Magistrate, Chairman, appointed by the Governor.

H. Davidson, Railway Accountant's Office, elected.

T. Wilson, Fireman, elected.

Middle Island.

C. D. R. Ward, District Judge, Chairman, appointed by the Governor.

T. W. Brebner, Stationmaster, elected.

P. E. Nolan, Signalman, elected.

POST AND TELEGRAPH DEPARTMENT.

GENERAL POST OFFICE.

Postmaster-General and Electric Telegraph Commissioner—Hon. J. G. Ward

Secretary—W. Gray

Superintendent of Electric Lines—J. K. Logan

Assistant Secretary and Inspector—T. Rose

Controller of Money-orders and Savings-banks, and Accountant—G. Gray

Chief Clerk—D. Robertson

Clerks, Secretary's Office—F. V. Waters, H. Plimmer, J. C. Williamson, W. Crow, V. J. Brogan, W. Isbister, H. D. Grocott, J. C. Redmond, A. T. Markmann, W. J. Gow, F. W. Furby, R. A. Keenan
Mail Agent—A. P. Dryden
Clerks, Inspector's Branch—E. V. Senn, G. V. Hudson, H. S. B. Miller, J. Brennan, A. H. Tucker, W. A. Tanner
Clerks, Accountant's Branch — W. R. Morris, J. L. H. Ledger, H. A. R. Huggins, G. W. Moorhouse, W. Callaghan, W. Chegwidden, R. J. Thompson, H. Cornwall, F. Perrin, J. J. Esson, R. E. Hayes, D. A. Jenkins, E. Fitzsimons, H. N. McLeod, J. D. Avery, C. B. Harton, W. J. Drake, C. Dempsey, H. A. Smith, J. G. Roache, J. Coyle, F. W. Faber, F. E. Beamish, P. J. Kelleher, G. H. Harris, H. C. Milne, C. W. J. Panting, H. C. Hickson, P. D. Hoskins, W. R. Wakelin, F. Stewart, J. G. Howard, T. E. Diamond, J. B. Jordan, N. M. Chesney, R. de Lambert, H. E. Combs, J. E. Hull, A. Marshall, F. G. A. Eagles, C. G. Collins, E. Bermingham, C. Bermingham, S. Brock, E. Harris, I. Johnston, B. M. Kenny, V. Johnston, M. A. McLeod, C. Smith, M. A. Asquith
Electrician—
Assistant Electrician—T. Buckley
Mechanicians—R. Heinitz, F. Palmer
Storekeeper—J. Black
Assistant Storekeeper—C. B. Mann
Clerks in Store—C. Nicholls, T. Palmer, W. H. Carter, M. McGilvray, S. M. Harrison
Circulation Branch, Post Office—

CHIEF POSTMASTERS.

Auckland—S. B. Biss
*Thames—J. E. Coney
*Gisborne—G. W. Sampson
Napier—S. J. Jago
*New Plymouth—F. D. Holdsworth
*Wanganui—J. F. McBeth
*Blenheim—J. Bull
*Nelson—H. Calders
*Westport—J. H. Sheath
*Greymouth—C. J. Berry
*Hokitika—W. St. G. Douglas
Christchurch—R. Kirton
*Timaru—J. A. Hutton
*Oamaru—W. W. Beswick
Dunedin—E. Cook
*Invercargill—J. W. Wilkin

INSPECTORS OF TELEGRAPHS.

Auckland—E. H. Bold
Christchurch—J. W. Gannaway
Dunedin—J. Orchiston
Nelson—W. G. Meddings

ASSISTANT INSPECTORS OF POST OFFICES.

D. Cumming (Northern District), S. P. Stevens (Midland District), C. J. A. H. Tipping (Southern District)

OFFICERS IN CHARGE OF TELEGRAPH OFFICES.

Auckland—W. S. Furby
Napier—H. W. Harrington
Wellington—C. C. Robertson
Christchurch—J. W. Mason
Dunedin—J. G. Ballard

BOARD OF APPEAL.

J. McGowan, Commissioner of Taxes, Chairman (by Act).
J. K. Logan, Superintendent of Electric Lines (by Act).
F. M. Scully, Representing Postal Branch, elected.
W. McNickle, Representing Telegraph Branch, elected.

DEPARTMENT OF TRADE AND CUSTOMS.

Commissioner of Trade and Customs—Rt. Hon. R. J. Seddon, P.C.
Secretary and Inspector of Customs and Secretary of Marine—W. T. Glasgow.
Chief Clerk—T. Larchin
Clerks, Customs — F. Oxford, V. R. Meredith, C. H. Manson
Cadet—L. J. Thompson
Audit—H. W. Brewer, H. Crowther* (Writer)

COLLECTORS OF CUSTOMS.

Auckland—A. Rose
Poverty Bay—E. Pasley
New Plymouth—H. Bedford
Napier—E. R. C. Bowen
Wellington—D. McKellar
Wanganui—A. Elliott
Wairau—W. J. Hawley
Nelson—W. Heaps
Westport—J. Mills
Greymouth—A. McDowell
Hokitika—J. P. Ridings

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* Combined post- and telegraph-offices.

Lyttelton and Christchurch—E. Patten
Timaru—A. Hart
Oamaru—T. M. Cullen
Dunedin—C. W. S. Chamberlain
Invercargill and Bluff Harbour—D. Johnston, jun.

OFFICERS IN CHARGE OF PORTS, AND COASTWAITERS.

Thames—T. C. Bayldon, Coastwaiter
Russell—H. Stephenson, Coastwaiter
Tauranga—E. Northcroft, Officer in Charge
Whangaroa—A. G. Ratcliffe, Coastwaiter
Whangarei—J. Munro, Coastwaiter
Mongonui—A. D. Clemett, Officer in Charge
Hokianga—G. Martin, Coastwaiter
Kaipara—J. C. Smith, Officer in Charge
Waitara—J. Cameron, Coastwaiter
Foxton—J. B. Imrie, Officer in Charge
Patea—J. W. Glenny, Officer in Charge
Picton—F. J. Robertshaw, Officer in Charge
Chatham Islands—R. S. Florance, Officer in Charge

MARINE DEPARTMENT.

Minister of Marine—Hon. W. Hall-Jones
Secretary—W. T. Glasgow
Chief Clerk—G. Allport
Clerks—J. J. D. Grix, G. Sinclair
Cadet—A. P. Owens
Marine Engineer for the Colony—W. H. Hales
Nautical Adviser and Chief Examiner of Masters and Mates—H. S. Blackburne
Weather Reporter—R. A. Edwin, Com. R.N.
Chief Inspector of Machinery, Principal Engineer Surveyor, and Chief Examiner of Engineers—R. Duncan
Chief Clerk—R. P. Milne
Clerk—J. H. Macalister
Cadet—J. Furlong
Inspectors of Machinery, Engineer Surveyors, and Examiners of Engineers:—Auckland—W. J. Jobson and L. Blackwood; Wellington—H. A. McGregor, P. J. Carman, and A. McVicar; Christchurch—G. Croll and A. W. Bethune; Dunedin—A. Morrison and H. Wetherilt
Board of Examiners of Traction, Locomotive, and Winding Engine Drivers: Robert Duncan, Chief Inspector of Machinery, Chairman; John Hayes, F.S.G.C., Inspecting Engineer of Mines; P. G. Hay, M.A., M.Inst.C.E., R. P. Milne, Secretary
Superintendent of Mercantile Marine and Examiner of Masters and Mates, Auckland—W. D. Reid
Superintendent of Mercantile Marine and Examiner of Masters and Mates—Wellington, G. G. Smith
Superintendent of Mercantile Marine and Examiner of Masters and Mates, Lyttelton—J. A. H. Marciel
Superintendent of Mercantile Marine and Examiner of Masters and Mates, Dunedin—C. E. W. Fleming
Master of s.s. "Tutanekai"—C F. Post
Master of s.s. "Hinemoa"—J. Bollons

INSPECTORS OF SEA FISHERIES.

Russell—H. Stephenson
Whangarei—J. Munro
Wellington—L. F. Ayson and F. Moorhouse
Hokitika—J. Duncan
Bluff—P. McGrath

HARBOURMASTERS.*

Collingwood—F. Stallard
Foxton—A. Seabury
Hokianga—G. Martin
Kaipara—J. Christy Smith
Manukau—J. Neale
Motueka—H. L. Moffatt
Nelson—F. W. Cox
Picton—W. Bowles
Port Robinson—J. Sinclair
Russell—H. Stephenson
Waitapu—S. G. Robinson

STAMP DEPARTMENT.

Commissioner of Stamp Duties—Hon. Jas. Carroll
Secretary for Stamps—C. A. St.G. Hickson
Chief Clerk and Accountant—H. O. Williams
Custodian and Issuer of Stamps—W. H. Shore
Record and Receiving Clerk—J. P. Murphy
Clerk—J. Murray
Chief Stamper—C. Howe
Cadets—W. Wilkes, W. F. Alexander

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* The more important harbours are controlled by local Boards, not by the Marine Department.

Deputy Commissioners of Stamps.

Auckland—E. Bamford
Gisborne—C. H. W. Dixon
Taranaki—R. L. Stanford
Hawke's Bay—Thos. Hall
Wellington—C. A. St. G. Hickson
Wanganui – J. F. McBeth
Nelson—W. W. de Castro
Marlborough—A. V. Sturtevant
Canterbury—E. Denham
Timaru—J. A. Hutton
Otago—P. C. Corliss
Southland—F. G. Morgan
Westland—V. G. Day

LAND TRANSFER DEPARTMENT AND DEEDS REGISTRY.

Registrar-General of Land and Deeds—G. B. Davy
Secretary, Land and Deeds—C. A. St. G. Hickson

District Land Registrars and Registrars of Deeds.

Auckland—E. Bamford
Taranaki—R. L. Stanford
Wellington—Wm. Stuart
Hawke's Bay—Thos. Hall
Gisborne—J. M. Batham
Nelson—H. W. Robinson
Marlborough—J. Allen
Canterbury — G. G. Bridges, District Land Registrar; E. Denham, Registrar of Deeds
Otago—H. Turton
Southland—F. G. Morgan
Westland—V. G. Day

Examiners of Titles.

Auckland—E. Bamford
Taranaki—R. L. Stanford
Wellington—Wm. Stuart, H. Howorth
Hawke's Bay—Thos. Hall
Gisborne—J. M. Batham
Nelson—H. W. Robinson
Marlborough—Wm. Stuart
Canterbury—G. G. Bridges
Otago—H. Turton
Southland—F. G. Morgan
Westland—V. G. Day

Registrar of Joint-stock Companies.

C. A. St. G. Hickson

Registrars of Building Societies, Industrial and Provident Societies, and Assistant Registrars of Joint-stock Companies.

Auckland—E. Bamford
Taranaki—R. L. Stanford
Hawke's Bay—Thos. Hall
Wellington—H. O. Williams
Nelson—W. W. de Castro
Marlborough—A. V. Sturtevant
Canterbury—E. Denham
Otago—P. C. Corliss
Southland—F. G. Morgan
Westland—V. G. Day
Poverty Bay—C. H. W. Dixon

EDUCATION DEPARTMENT.

Minister of Education (administering also Native schools, industrial schools, and the institution for deaf-mutes)—Hon. W. C. Walker
Secretary for Education and Inspector-General of Schools—George Hogben, M.A.
Assistant Secretary—Sir E. O. Gibbes, Bart.
Clerks—F. K. de Castro, H. B. Kirk, M.A., R. H. Pope, F. L. Severne, E. C. Banks, F. D. Thomson, T. G. Gilbert, J. Beck
Inspector of Native Schools—James H. Pope. Assistant Inspector — H. B. Kirk. M.A.

Education Boards.

Auckland—V. E. Rice, Secretary
Taranaki—P. S. Whitcombe, Secretary
Wanganui—A. A. Browne, Secretary
Wellington—A. Dorset, Secretary
Hawke's Bay—G. T. Fannin, Secretary
Marlborough—J. Smith, Secretary
Nelson—S. Ellis, Secretary
Grey—W. Riemenschneider, Secretary
Westland—A. J. Morton, B.A., Secretary
Canterbury North—H. C. Lane, Secretary
Canterbury South — J. H. Bamfield, Secretary
Otago—P. G. Pryde, Secretary
Southland—J. Neill, Secretary

School Commissioners (*Administrators of Education Reserves*).

Auckland—H. N. Garland, Secretary
Taranaki—F. P. Corkill, Secretary
Wellington—N. J. Tone, Secretary

Hawke's Bay—E. P. A. Platford, Secretary
Marlborough—J. Smith, Secretary
Nelson—A. T. Jones, Secretary
Westland—A. J. Morton, Secretary
Canterbury—H. H. Pitman, Steward of Reserves
Otago—C. Macandrew, Secretary

INDUSTRIAL SCHOOLS.

Government Schools.

Auckland Industrial School—Miss S. E. Jackson, Manager
Burnham Industrial School (Canterbury) —T. Archey, Manager
Caversham Industrial School (Otago)—G. M. Burlinson, Manager

Private Schools.

St. Mary's Industrial School, Ponsonby —Rev. G. H. Gillan, Manager
St. Joseph's Industrial School, Wellington—Rev. W. J. Lewis, Manager
St. Mary's Industrial School, Nelson—Rev. W. J. Mahoney, Manager
St. Vincent de Paul's Industrial School, Dunedin—Rev. P. Murphy, Manager

INSTITUTION FOR DEAF-MUTES, SUMNER.

Director—G. van Asch
Steward—H. Buttle

LUNATIC ASYLUMS.

Inspector—Duncan MacGregor, M.A., M.B., C.M.*
Assistant Inspector—Mrs. Grace Neill
Medical Superintendent, Auckland Asylum—R. M. Beattie, M.B.
Medical Superintendent, Christchurch Asylum—E. G. Levinge, M.B.
Medical Superintendent, Porirua Asylum—Gray Hassell, M.D.
Medical Superintendent, Wellington Asylum—W. Baxter Gow, M.D.
Medical Superintendent. Seacliff Asylum —F. Truby King, M.B.
Superintendent, Hokitika Asylum — H. Gribben; Medical Officer, H. Macandrew, M.B.
Superintendent, Nelson Asylum—J. Morrison; Medical Officer, A. G. Talbot, M.B.
Ashburn Hall, Waikari (private asylum) —Proprietors, Dr. Alexander and Executor of James Hume; Medical Officer, Frank Hay, M.B.

MINES DEPARTMENT

CHIEF OFFICE.

Minister of Mines—Hon. James McGowan
Under-Secretary for Mines—H. J. H. Eliott
Inspecting Engineer—John Hayes
Chief Clerk—T. H. Hamer
Clerk—H. E. Radcliffe
Analyst—W. Skey
Geologist—Alexander McKay, F.G.S.
Assistant Geologist—W. A. McKay
Draughtsman—C. H. Pierard
Cadet—J. T. Watkins

INSPECTORS OF MINES.

Thames and Auckland Districts—James Coutts; Assistant Inspector, Thomas Ryan; Canterbury, Dunedin, and Southland Districts—E. R. Green; Cadet, H. Paton; West Coast Districts—R. Tennent; Assistant Inspector—A. H. Richards

MINING BUREAU.

Secretary—P. Galvin

MANAGERS OF WATER-RACES.

Waimea-Kumara—A. Aitken
Mount Ida—R. Murray

SCHOOLS OF MINES.

Lecturers and Instructors: Thames—F. B. Allen, M.A., B.Sc.; Assistant, W. H. Baker; Reefton— ; Coromandel—P. J. MacLeod; Waihi —P. G. Morgan, M.A; Assistant, K. M. Barrance

BOARD OF EXAMINERS UNDER "THE COAL-MINES ACT, 1891."

The Director of the Geological Survey of New Zealand; the Surveyor-General; the Inspecting Engineer of Mines; the Chief Inspector of Machinery, Wellington; James Bishop, of Brunnerton; Alfred Benjamin Lindop, and William Shore, of Kaitangata

BOARD OF EXAMINERS UNDER "THE MINING ACT, 1891."

Same official members as above Board, excepting the Chief Inspector of Machinery, Wellington, with the following private members: H. A. Gordon, F. G. S., Auckland, Thomas Aitken

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* Also holds appointment of Inspector of Hospitals and Charitable Institutions.

Dunlop, Thames; Patrick Quirk Caples, Reefton; and Francis Hodge, Coromandel.

The Director of the Geological Survey of New Zealand is Chairman of both Boards, and Mr. T. H. Hamer is the Secretary.

GEOLOGICAL SURVEY, MUSEUM, AND OBSERVATORIES.

Minister in Charge—The Hon. Minister of Mines
Director — Sir J. Hector, K.C.M.G., M.D., F.R.S.
Clerk, Curator, and Meteorological Observer for Wellington—R. B. Gore
Astronomical Observer—T. King
Meteorological Observer, Auckland—T. F. Cheeseman, F.L.S.
Meteorological Observer, Dunedin — H. Skey
Meteorological Observer, New Plymouth —G. W. Palmer
Meteorological Observer, Hokitika—A. D. Macfarlane
Meteorological Observer, Rotorua—Dr. Kenny
Meteorological Observer, Te Aroha—W. Hill
Meteorological Observer, Lincoln—M. Guérin
Meteorological Observer, Hanmer Plains Miss C. Taylor

NEW ZEALAND INSTITUTE.

Manager—Sir J. Hector, K.C.M.G., M.D., F.R.S.
Hon. Treasurer — W. T. L. Travers, F.L.S.
Secretary—R. B. Gore

DEFENCE DEPARTMENT.

Minister of Defence—Rt. Hon. R. J. Seddon, P.C.
Under-Secretary — Sir A. P. Douglas, Bart. (Retired Lieutenant R.N.), Major N.Z.M.

Commander of the N.Z. Forces.

Colonel Arthur Pole Penton, N.Z.M., Lieut.-Colonel, R.A.

Staff Officers to the Commander of the N.Z. Forces.

Major Wm. Roberts Napier Madocks, N.Z.M. (Lieutenant R.A.)
Lieut.-Commanding: L. J. Joyce (acting)

Staff Officers for the Instruction of Mounted Rifle Volunteers.

Middle and South Islands—Major Alfred W. Robin, N.Z.M.
North Island—Major Richard Hutton Davies, N.Z.M.
Clerk—T. F. Grey
Cadet—A. J. Baker

Defence Store Department.

Storekeeper—J. O'Sullivan (acting)
Assistant Storekeeper—T. H. Sewell

NEW ZEALAND PERMANENT MILITIA.

No. 1 Service Company.

Lieut.-Colonel W. B. Messenger
Captain H. C. Morrison
Lieutenant J. E. Hume
Lieutenant H. E. Pilkington
Lieutenant W. P. Wall
Lieutenant M. M. Gard'ner

Inspectors of Submarine Mining Establishment.

Captain J. Falconer
Captain William Coyle, late Coast Brigade, R.E.

No. 2 Service Company.

Captain J. Falconer
Captain William Coyle, late Coast Brigade, R.E.
Lieutenant F. Symon

Quartermaster, Permanent Militia.

————.

Surgeon, Permanent Militia (Wellington).

John Teare, M.B.

Surgeon, Permanent Militia (Auckland).

John Wilkins, M.R.C.S.E.

Surgeon, Permanent Militia (Lyttelton).

C. H. Upham, M.R.C.S.E.

Honorary Surgeon, Permanent Militia.

Patrick J. O'Neill O'Carroll, L.R.C.S.I.

Honorary Chaplain, Lyttelton Detachment Permanent Militia.

The Rev. E. E. Chambers

Honorary Chaplain, Wellington Detachment Permanent Militia.

The Rev. W. C. Waters, M.A.

Officers Commanding Militia and Volunteer Districts, and Adjutants.

Auckland—Lieut.-Colonel Joseph Henry Banks, N.Z.M. (late Major H.M. 7th Dragoon Guards, &c.). Acting Adjutant :

Wellington — Lieut. - Colonel Stuart Newall, N.Z.M.

Canterbury—Lieut.-Colonel Henry Gordon, N.Z.M., late H.M. 44th Foot

North Otago (sub-district)—V.D. Lieut.-Colonel Alfred Headland

Otago—Lieut.-Colonel William Holden Webb, N.Z.M., late H.M. 109th Foot

Southland (sub-district)—Captain John Edward Hawkins

Nelson — Captain Wm. S. Littlejohn (Captain, Nelson College Cadets)

DEPARTMENT OF LANDS AND SURVEY.

HEAD OFFICE.

Minister of Lands—Hon. John McKenzie

Surveyor-General and Secretary for Crown Lands—S. Percy Smith, F.R.G.S.

Assistant Surveyor-General and Under-Secretary for Crown Lands—Alexander Barron

Chief Draughtsman—F. W. Flanagan

Chief Clerk—W. S. Short

Chief Accountant—H. J. Knowles

Road Surveyor—C. W. Hursthouse

Auditor of Land Revenue —W. G Runcie

Superintendent of Village-settlements—J. E. March

AUCKLAND DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—G. J. Mueller

District Surveyors—L. Cussen, J. Baber, jun., G. A. Martin, A. H. Vickerman, H. D. M. Haszard

Assistant Surveyors—T. K. Thompson, R. S. Galbraith

Road Surveyors—A. B. Wright, A. C. Turner, T. Burd, D. Innes Barron

Chief Draughtsman—W. C. Kensington

Receiver of Land Revenue — T. M. Taylor

HAWKE'S BAY DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—E. C. Gold-Smith

District Land Officer, Gisborne, L. Smith

District Surveyors — L. Smith, James Hay

Assistant Surveyors—P. A. Dalziel, T. Brook

Chief Draughtsman—F. Simpson

Receiver of Land Revenue—F. Bull

TARANAKI DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—J. Strauchon

District Surveyors—H. M. Skeet, G. H. Bullard

Assistant-Surveyors—J. F. Frith, W. T. Morpeth, R. W. Watson

Road Surveyor—G. F. Robinson

Chief Draughtsman—C. R. Pollen

Receiver of Land Revenue—G. P. Doile

WELLINGTON DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—J. W. A. Marchant

District Surveyors—J. D. Climie, F. A. Thompson, H. J. Lowe, W. J. Wheeler

Assistant Surveyors—J. McKay, J R. Strachan

Road Surveyors—G. T. Murray, R. H. Reaney

Chief Draughtsman—J. Mackenzie

Receiver of Land Revenue—T. G. Waitt

NELSON DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—T. Humphries

District Surveyors—J. A. Montgomerie, J. Snodgrass, R. T. Sadd

Assistant Surveyors — J. D. Thomson, C. Kain

Chief Draughtsman and Receiver of Land Revenue—H. Trent

MARLBOROUGH DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—C. W. Adams

District Surveyors—F. S. Smith, D. W. Gillies

Assistant Surveyor—E. W. Buckeridge

Chief Draughtsman and Receiver of Land Revenue—W. Armstrong

WESTLAND DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—W. G. Murray

Assistant Surveyor—W. Wilson

Road Surveyor—F. B. Wither

Chief Draughtsman and Receiver of Land Revenue—G. J. Roberts

CANTERBURY DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—S. Weetman

District Surveyors—T. N. Broderick, G. H. M. McClure, L. O. Mathias
Chief Draughtsman—C. B. Shanks
Receiver of Land Revenue—A. A. McNab
Caretaker, Hanmer Springs—J. Rogers
Manager, Hanmer Springs Sanatorium—D. McDonald

OTAGO DISTRICT.

Commissioner of Crown Lands—J. P. Maitland
Chief Surveyor—John Hay
District Surveyors—J. Langmuir, E. H. Wilmot, D. M. Calder
Assistant Surveyors—W. D. R. McCurdie, W. T. Neill
Chief Draughtsman—S. Thompson
Receiver of Land Revenue—G. A. Reade

SOUTHLAND DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—David Barron
Assistant Surveyor—A. Hodgkinson
Chief Draughtsman—G. Robinson
Receiver of Land Revenue—H. L. Welch

MEMBERS OF LAND BOARDS.

Auckland—G. Mueller, R. Thompson, B. Harris, D. Lundon, J. Renshaw
Hawke's Bay—E. C. Gold-Smith, C. Hall, T. Hyde, R. R. Groom, G. Mathewson
Taranaki—J. Strauchon, T. Kelly, C. K. Stock, J. Heslop
Wellington—J. W. A. Marchant, A. W. Hogg, J. Stevens, A. Reese
Nelson—Thomas Humphries, John Graham, D. Bate, F. Hamilton, O. Lynch
Marlborough—C. W. Adams, C. H. Mills, J. Redwood, A. P. Seymour, G. Taylor
Westland—W. G. Murray, A. Matheson, J. Chesney, J. S. Lang, A. Cumming
Canterbury—S. Weetman, A. C. Pringle, R. Meredith, D. McMillan, J. McLachlan
Otago—J. P. Maitland, H. H. Kirkpatrick, H. Clark, J. Duncan, W. Dallas
Southland—David Barron, A. Kinross, J. McIntyre, A. Baldey, D. King

BOARD OF EXAMINERS OF SURVEYORS.

The Surveyor-General; the Assistant Surveyor-General; the Chief Surveyors for the Land Districts of Wellington, Hawke's Bay, Nelson, and Canterbury
Secretary to Board—T. M. Grant

"THE LAND FOR SETTLEMENTS ACT, 1894."

BOARD OF LAND PURCHASE COMMISSIONERS.

Chairman of Board and Land Purchase Inspector—Jas. McKerrow, F.R.A.S.

The Board consists of the Land Purchase Inspector as Chairman, the Surveyor-General, the Commissioner of Taxes—these for the whole colony—with the Commissioners of Crown Lands and a member of the Land Board in each land district, who are members only for the business arising within their respective districts.

DEPARTMENT OF AGRICULTURE.

CHIEF OFFICE.

Minister in Charge—Hon. J. McKenzie
Secretary of Agriculture and Chief Inspector of Stock—John D. Ritchie
Assistant Chief Inspector of Stock—T. A. Fraser
Chief Clerk—Richard Evatt
Clerk and Biologist—T. W. Kirk, F.L.S.
Clerks—J. Longton, J. E. D. Spicer, F. C. Hjorring, A. R. Kennedy, F. C. Matthews, W. Miller,
Agricultural Chemist—B. C. Aston
Poultry Expert—D. D. Hyde
Veterinary Surgeons—J. A. Gilruth, M.R.C.V.S. (Chief); Archibald Park, M.R.C.V.S.; A. R. Young, M.R.C.V.S., Wellington; C. J. Reakes, M.R.C.V.S., Dunedin; A. Crabb, M.R.C.V.S., Christchurch; J. G. Clayton, M.R.C..V.S., Auckland
Meat Inspectors—J. R. Charlton, M.R.C.V.S., Islington, Christchurch; D. H. Rait, M.R.C.V.S., Timaru; E. Nelson, M.R.C.V.S., Petone, Wellington; P. M. Edgar, M.R.C.V.S., Ngahauranga, Wellington; J. F. McEachran, Aramoho, Wanganui
Assistant, Veterinary Laboratory, Wellington—G. H. Barker
Relieving Inspector of Stock—D. Munro
Produce Commissioner, London—H. C. Cameron
Dairy Commissioner—J. A. Ruddick
Dairy Instructors and Graders—J. A. Kinsella, Wellington; J. Sawers, Wyndham; R. W. D. Robertson, Wellington; J. T. Lang, Wellington; A. A. Thornton, Lyttelton; J. Johnston, New Plymouth; D. J. McGowan,

New Plymouth; E. Townshend, Auckland
Assistant Entomologist and Fruit Inspector at Auckland—Thomas Broun, F.E.S.
Pomologists—W. J. Palmer, Auckland; J. C. Blackmore, Christchurch; S. I. Fitch, Christchurch
Fruit Inspectors—H. Palethorpe, Wellington; A. Cowie, Christchurch; A. F. Cargill, Dunedin
Experimental Station, Waverley—
Farm Overseer—F. Gillanders
Nurseryman—(vacant)

Inspectors of Stock.

Auckland—E. Clifton (in charge), F. Schaw and F. H. Brittain, Auckland; D. Fleming, Whangarei; D. Ross, Hamilton; H. E. Collett, Whakatane
Napier—W. Miller (in charge), W. R. Rutherfurd, Napier; C. Thomson, Gisborne; J. Kerr, Wairoa; J. Harvey, Woodville
Wairarapa—G. H. Jenkinson, Masterton (in charge); T. C Webb, Carterton
Wellington—J. Drummond, Wellington
West Coast—A. K. Blundell (in charge), Wanganui; J. W. Deem, New Plymouth; F. E. Orbell, Hawera; H. G. J. Hull, Palmerston North
Nelson—H. M. Campbell, Nelson (in charge); G. S. Cooke, Richmond
Marlborough—John Moore, Blenheim
Westland—V. A. Huddleston, Hokitika
Canterbury-Kaikoura—R. F. Holderness (in charge), E. A. Dowden, Christchurch; C. A. Cunningham, Rangiora; J. C. Huddleston, Rotherham; Blair Fullarton, Ashburton
South Canterbury—C. C. Empson, Timaru; W. Black, Fairlie; R. Rowan, Kurow
Otago—J. E. Thomson, Dunedin; A. Ironside, Mosgiel; J. C. Miller, Oamaru; F. G. Wayne, Milton; J. L. Bruce, Balclutha; W. Dalgleish, Clyde; J. Budge, Queenstown; R. I. Gossage, Naseby; A. Mills, Lawrence; James Duncan, Palmerston; E. A. Field, Gore; H. T. Turner, Invercargill; T. Gilmour, Riverton; J. W. Raymond, Bluff

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VALUATION DEPARTMENT.

Valuer General—John McGowan
Deputy Valuer-General—G. F. C. Campbell
Chief Clerk—F. J M. D. Walmsley
Clerks—J. P. Dugdale, H. L. Wiggins, A. W. Knowles, A. E. Fowler, H. O'Rourke, H. Redmond, J. Ferguson
Cadet—H. A. Anderson
Draughtsman—H. H. Seed
Supervising Valuers—W. Duncan, Auckland; A. P. O'Callaghan, Christchurch; A. McKerrow, Dunedin; H. Carswell, Invercargill
District Valuers—James I. Wilson, jun., Whangarei; J. J. Reynolds, Auckland; W. Garrett, Paeroa; W. H. Wallis, Hamilton; Ian S. Simson, Gisborne; W. E. Griffin, Napier; H. J. C. Coutts, Hawera; S. Hill, New Plymouth; A. Barns, Wanganui; R. Gardner, Palmerston North; J. Fraser, Masterton; T. W. Caverhill, Petone; E. Kenny, Picton; J. Webster, Hokitika; A. D. Bayfield, Westport; D. Dick, Ashley; J. Whitelaw, Christchurch; A. Freeman, Christchurch; A. Allan, Timaru; E. A. Atkinson, Oamaru; W. L. Craig, Palmerston South; W. Dallas, Balclutha; A J. Burns, Dunedin; J. George, Queenstown; John Smaill, Gore; Charles Rout, Invercargill; William Baird, Winton
Clerks—Auckland, E. W. Watson; Christchurch, J. M. Wheeler, A. Millar; Dunedin, A. Clothier, J. T. Bolt; Invercargill, T. Oswin, C. de R. Andrews
Cadet—Christchurch, E. J. R. Cumming

GOVERNMENT LIFE INSURANCE DEPARTMENT.

Commissioner—J. H. Richardson, F.F.A., F.I.A.V.
Assistant Commissioner—D. M. Luckie
Actuary—Morris Fox
Secretary—W. B. Hudson
Chief Medical Officer—T. Cahill, M.D.
Accountant—G. W. Barltrop
Assistant Actuary—G. Leslie
Chief Clerk—R. C. Niven
Second Assistant Actuary—P. Muter
Office Examiner—G. A. Kennedy
Clerks—J. W. Kinniburgh, D. J. McG. McKenzie, W. S. Smith, A. H. Hamerton, F. B. Bolt, C. E. Galwey, T. L. Barker, A. L. B. Jordan, H. S. Manning, A. Avery, A. E. Allison, G. Webb, C. W. Palmer, C. J. Alexander, F. K. Kelling, J. B. Young, G. C. Fache, J. A. Thomson, R. T. Smith, H.

Rose, A. de Castro, R. P. Hood, G. A. N. Campbell, A. T. Traversi, F. M. Leckie, W. H. Woon, S. P. Hawthorne, J. G. Reid, A. E. Jackson, C. H. E. Stichbury, J. R. Samson, H. H. Henderson, R. Fullerton, A. H. Johnstone, J. S. Butler, R. S. Latta, H. Davies, T. Fouhy, J. Lindsay, J. R. Fraser, G. E. Sadd, J. T. Gunn, T. M. Dimant, W. Spence

Chief Messenger—W. Archer

Auckland Agency.

District Manager—W. J. Speight
Chief Clerk—J. K. Blenkhorn
Clerks—C. H. Ralph and H. Wylie

Napier Agency.

Resident Agent—J. H. Dean
Clerk—G. C. Rodda

Wanganui Agency.

Resident Agent—J. Fairburn

Wellington Agency.

District Manager and Supervisor of New Business—G. Robertson
Chief Clerk—M. J. K. Heywood
Clerks—W. C. Marchant and A. M. McDonald

Nelson Agency.

Resident Agent—A. P. Burnes

Greymouth Agency.

Resident Agent—A. W. G. Burnes

Christchurch Agency.

District Manager—J. C. Prudhoe
Chief Clerk—J. W. H. Wood
Clerk—G. J. Robertson

Timaru Agency.

Resident Agent—S. T. Wicksteed

Oamaru Agency.

Resident Agent—C. H. Pinel

Dunedin Agency.

District Manager—R. S. McGowan
Chief Clerk—G. Crichton
Clerks—A. Marryatt and G. S. Nicoll

Invercargill Agency.

Resident Agent—J. Findlay
Clerk—W. J. Ewart

PUBLIC TRUST OFFICE.

Public Trustee—J. W. Poynton
Solicitor—F. J. Wilson
Chief Clerk—A. A. K. Duncan
Assistant Chief Clerk—T. S. Ronaldson
Accountant—M. C. Barnett
Clerks — T. Stephens, M. Townsend, P. Fair, C. Zachariah, P. Hervey, E. C. Reeves, W. A. Fordham, A. Purdie, G. A. Smyth, A. J. Cross, W. McGowan, M. E. Harrap, S. Dimant, E. A. Smythe, J. B Jack, W. Barr, E. O. Hales, C. Morris, S. W. Smith, C. A. Goldsmith, H. Masters, R. Price, M. Leahy, H. Turner, E. J. Holmes
District Agent, Christchurch—J. J. M. Hamilton; Clerks, T. R. Saywell, J. Allen, P. A. Devereux
District Agent, Auckland—E. F. Warren; Clerk, K. N. H. Browne
District Agent, Dunedin—F. H. Morice; Typist, F. Naphtali; Cadet, W. Campbell
District Agent, Greymouth—T. D. Kendall
District Agent, Nelson—E. P. Watkis
West Coast Settlement Reserves Agent —Thomas W. Fisher; Clerk, H. Oswin

ADVANCES TO SETTLERS OFFICE.

Superintendent—John McGowan
Deputy Superintendent—G. F. C. Campbell
Chief Clerk—F. J. M. D. Walmsley
Inspecting Accountant—P. Heyes
Clerks—W. Waddel, H. E. Williams, T. C. Somers, W. N. Hinchcliffe, J. Atkinson, J. E. Thompson, W. Auld, C. T. Fraser, T. W. Foote, A. A. Prichard, M. J. Crombie, C. Wilson C. B. Collins, D. Fraser, R. G. McLennan, A. Tudhope
Chief Valuers—W. Duncan, Auckland; A. P. O'Callaghan, Christchurch; A. McKerrow, Dunedin; H. Carswell, Invercargill
Clerks at Agencies—F. B. Robertson, Auckland; H. S. Barron, Invercargill

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Cadets in Government Service to be Volunteers.

Cadets in the Civil Service are required, after arriving at the age of eighteen years, to serve for three years in a Volunteer corps. Heads of departments are required to see that cadets who come within the regulations join the Volunteer Force, and serve for the period named, and also to notify the Under-Secretary for Defence of the appointment of all cadets coming within this regulation.

ECCLESIASTICAL.

THERE is no State Church in the colony, nor is State aid given to any form of religion. Government in the early days set aside certain lands as endowments for various religious bodies, but nothing of the kind has been done for many years past.

CHURCH OF THE PROVINCE OF NEW ZEALAND, COMMONLY CALLED THE "CHURCH OF ENGLAND."

Bishops.

The Most Rev. William Garden Cowie, D.D., Auckland; consecrated 1869 (Primate).

The Right Rev. William Leonard Williams, D.D., Waiapu; consecrated 1895.

The Right Rev. Frederic Wallis, D.D., Wellington; consecrated 1895.

The Right Rev. Charles Oliver Mules, M.A., Nelson; consecrated 1892.

The Right Rev. Churchill Julius, D.D., Christchurch; consecrated 1890.

The Right Rev. Samuel Tarratt Nevill, D.D., Dunedin; consecrated 1871.

The Right Rev. Cecil Wilson, M.A., Melanesia; consecrated 1894.

ROMAN CATHOLIC CHURCH.

Archbishop.

The Most Rev. Francis Redwood, S.M., D.D., Archbishop and Metropolitan, Wellington; consecrated 1874.

Bishops.

The Right Rev. George Michael Lenihan, D.D., Auckland; consecrated 1896.

The Right Rev. John Joseph Grimes, S.M., D.D., Christchurch; consecrated 1887.

The Right Rev. Michael Verdon, D.D., Dunedin; consecrated 1896.

ANNUAL MEETINGS AND OFFICERS.

The principal present heads or officers of the various churches, and the places and times of holding the annual or periodical assemblies or meetings, are as follow:—

Church of England.—For Church purposes, the colony is divided into six dioceses, viz.: Auckland, Waiapu, Wellington, Nelson, Christchurch, and Dunedin. The General Synod meets every third year in one or other of the dioceses. Delegates attend from each diocese, and also from the diocese of Melanesia.—President, the Bishop of Auckland, Primate. The Diocesan Synods meet once a year, under the presidency of the Bishop of the diocese. The next General Synod will be held in Napier, on the 29th January, 1901.

Roman Catholic Church.—The diocese of Wellington, established in 1848, was in 1887 created the metropolitan see. There are three suffragan dioceses—Auckland, Christchurch, and Dunedin. A Retreat is held annually in each of the four dioceses, at the end of which a Synod is held, presided over by the Bishop, and at which all his clergy attend.

In January, 1899, the first Provincial Council of New Zealand was held in Wellington, under the presidency of the Metropolitan, and attended by all the Suffragan Bishops, and a number of priests elected specially in each diocese as representatives of the whole Catholic clergy in the colony. The decrees of this Council, when approved by Rome, will be published in the course of a few months, and will be binding in every diocese in New Zealand.

Presbyterian Church of New Zealand.—The Assembly has met annually, in February, at Auckland, Wellington, and Christchurch, in succession. In 1901 it will meet in Wanganui. Moderator, the Right Rev. W. R. Campbell, B.A; Clerk and Treasurer, Rev. David Sidey, D.D., Napier.

Presbyterian Church of Otago and Southland.—The Synod meets annually in October at Dunedin. Moderator, Rev. W. Bannerman, Roslyn, Dunedin; Interim Clerk, Rev. A. M. Finlayson, Waitati, Dunedin; Church Factor, Mr. Frederick Smith, High Street, Dunedin. Theological Professors, Rev. John Dunlop, M.A., D.D., and Rev. Michael Watt, M.A., D.D. Mr. James Dunbar, Tutor in Greek.

Wesleyan Methodist Church.—The annual Conference meets on or about the last Tuesday in February, the exact date being determined by the President, who holds office for one year. Each Conference determines where the next one shall assemble. President (1900–1901), Rev. J. S. Smalley, F.R.G.S., Nelson; Secretary, Rev. D. J. Murray, Thames. The next Conference is to meet in Wesley Church, Taranaki Street, Wellington.

Primitive Methodists.—A Conference takes place every January. The next is to be held at Franklin Road, Auckland, commencing 11th January, 1901. The Conference officials for the present year are: President, Rev. James Cocker, Wanganui; Vice-President, Mr. William Dobbs, Christchurch; Secretary, Rev. Thomas H. Lyon, Forth Street, Invercargill; Secretary of Executive Committee, Mr. D. Goldie, Pitt Street, Auckland; Treasurer of Mission Funds, Mr. Joseph Watkinson, Mangare, Auckland.

Baptist Union of New Zealand.—President, Rev. Joseph Clark, Auckland; Treasurer, Mr. A. Chidgey, Christchurch; Secretary, Rev. A. H. Collins, Auckland. The Union comprises 32 churches, 3,531 members, 4,686 scholars in the Sunday schools, with 560 teachers. There were also 78 local preachers, and 17 preaching-stations. This religious body has a newspaper of its own, the

New Zealand Baptist, published in Christchurch; Editor, Rev. F. W. Boreham, Mosgiel.

Congregational Union of New Zealand.—The annual meetings are held during the month of February, at such place as may be decided on by vote of the Council. Chairman for 1900–1901, Rev. S. J. Baker, Christchurch; Chairman-elect, Rev. J. R. Glasson, Wellington; Secretary, Rev. Frederic Warner, Auckland; Treasurer, Mr. W. H. Lyon, Auckland; Registrar, Mr. W. M. Trigg, Auckland; Head Office, Auckland. In 1901 the meeting of the Council will be held at Christchurch. The Committee of the Union meets in Auckland on the second Tuesday of each month.

Hebrews.—Ministers: Rev. S. A. Goldstein, Auckland; Rev. H. van Staveren, Wellington; Rev. A. T. Chodowski, Dunedin; Mr. Alexander Singer, Hokitika. Annual meetings of the general Congregations are usually held at these places during the month of Elul (about the end of August).

DEFENCES, MILITARY AND NAVAL.*

The defence forces consist of the Permanent Militia (Artillery and Submarine Mining Corps), and the auxiliary forces of Volunteers (Cavalry, Mounted Rifles, Naval Artillery, Field Artillery, Engineers, and Rifle companies). There is a Commander of the Forces, who is an Imperial officer, and he has a Staff officer who is also an Imperial officer. To the Under-Secretary for Defence all questions of expenditure are referred; while the Chief Engineer of the Public Works Department has charge of the defence-works.

MILITIA AND VOLUNTEER DISTRICTS.

The two islands (North and Middle) are divided into five districts and two sub-districts, each commanded by a Field Officer of Militia or Volunteers, with a staff of drill-sergeants.

PERMANENT MILITIA (ARTILLERY).

This Force is divided into four companies, which are stationed at Auckland, Wellington (head-quarters), Lyttelton, and Dunedin; their principal duties are to look after and take charge of all guns, stores, ammunition, and munitions of war at these four centres. The Force consists of one lieut.-colonel, one captain, four subalterns, with an establishment of 215 of all ranks.

PERMANENT MILITIA (SUBMARINE MINERS).

This branch, like the Artillery, is divided amongst the four centres for submarine mining and torpedo work, and consists of two captains and one subaltern, with a total establishment of 77 of all ranks. They have charge of four torpedo-boats and four steam-launches, and of all submarine mining and torpedo stores. They are likewise employed in blowing up rocks and wrecks, and generally improving harbours.

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* For information as to Military Contingents sent for service in South Africa, see Part III.

VOLUNTEERS.—CAVALRY.

There are two troops of Cavalry, both being in the Middle Island. These corps are kept in a state of efficiency by going into camp for six days' training annually. The total strength of the two troops is 135 of all ranks.

VOLUNTEERS.—MOUNTED RIFLES.

There are sixteen corps of Mounted Rifles, nine in the North Island and seven in the Middle Island, with a total strength of 1,060 of all ranks. These corps go into camp for an annual training of six days.

VOLUNTEERS.—NAVAL ARTILLERY.

There are nine batteries of this branch of the service (six in the North Island and three in the Middle Island), having a total strength of 815 of all ranks. These corps are divided into port and starboard watches at the four centres; some of these corps are trained to assist the Permanent Artillery in working heavy ordnance, whilst others act as auxiliaries to the Submarine Miners in submarine mining and torpedo work. These corps have cutters and other boats provided and kept up for them, and are instructed in rowing, knotting, splicing, signalling, and such like duties, and go into camp annually for sixteen days.

VOLUNTEERS.—GARRISON ARTILLERY.

There is one corps of Garrison Artillery in the North, with a strength of 73 of all ranks, and one in the Middle Island, with a strength of 68 of all ranks, and go into camp annually for sixteen days.

VOLUNTEERS.—FIELD ARTILLERY.

There are five batteries of Field Artillery (two in the North Island and three in the Middle Island), with a total of 365 of all ranks. They are armed with 9-pounder Armstrong breech-loading rifled guns and 6-pounder Nordenfeldts, on field-carriages, and go into camp annually for sixteen days.

VOLUNTEERS.—ENGINEERS.

This branch consists of three corps, with a total of 277 of all ranks, one in the North and two in the Middle Island. Besides carrying rifles they are provided with entrenching tools and all appliances for blowing up bridges or laying land-mines.

VOLUNTEERS.—RIFLE CORPS.

In this branch of the service there are seventy-four corps (besides one honorary reserve, 45 strong), thirty-five being in the North Island and thirty-nine in the Middle Island, with a total strength of 4,794 of all ranks, including garrison bands.

VOLUNTEERS.—CADET CORPS.

There is a force of forty-one cadet corps—viz., fifteen in the North Island and twenty-six in the Middle Island, with a total strength of 2,064 of all ranks.

VOLUNTEERS.—CYCLE CORPS.

There are Volunteer cycle corps at Wellington, Christchurch, and Dunedin, of a maximum strength of two officers and twenty-five non-commissioned officers, rank and file, and are attached to the infantry battalions at those centres.

VOLUNTEERS.—BEARER CORPS.

Volunteer bearer corps at Auckland, Wellington, Christchurch, and Dunedin, of a maximum strength of two officers and twenty-five non-commissioned officers, rank and file, are attached to the infantry battalions at those centres.

ORDNANCE, ARMS, ETC.

The armament at the forts of the four centres consists of 8 in. 13-ton breech-loading rifled Elswick Ordnance Company's guns, with 6 in. 5-ton, of like pattern, all mounted on hydro-pneumatic disappearing carriages; 7 in. 7-ton muzzle-loading rifled guns, on traversing slides; 64-pounder rifled muzzle-loading converted 71 cwt. guns, on garrison standing carriages and traversing slides; 64-pounder rifled muzzle-loading 64 cwt. guns on traversing slides; 6-pounder quick-firing Nordenfeldts, on garrison pillar-mountings, and field-carriages; Hotchkiss quick-firing guns and Maxim machine guns. The Volunteer Field Artillery are armed with 9-pounder Armstrong breech-loading rifled guns, and 6-pounder Nordenfeldts, and the whole of the adult portion of the Force have carbines or rifles of Martini-Enfield and Martini-Henry patterns; Cadets being armed with Snider carbines.

There is a large stock of Whitehead torpedoes, contact- and ground-mines, in charge of the Submarine Mining Companies, as well as four Thorneycroft torpedo-boats.

ENROLMENT, ETC.

Members of the Permanent Militia are enrolled to serve until lawfully discharged, and Volunteers for one year. The Permanent Militia is principally recruited from men who have one year's efficient service in the Volunteers; and after passing the gunnery and other courses and serving three years in the Permanent Militia the men are eligible for transfer to police and prison services.

INSTRUCTORS.

The Instructors for Permanent Artillery and Torpedo Corps are obtained from the School of Gunnery at Shoeburyness, and from the Royal Engineers, under a three years' engagement, on completion of which they return to their regiments.

CAPITATION.

An annual capitation of £2 10s. is granted to each efficient Volunteer, and a sum not exceeding £20 to each efficient cadet corps. One hundred and fifty rounds of ball-cartridge are issued each year free to every adult Volunteer, and twenty-five rounds of Snider ball to each cadet over thirteen years of age.

ADMINISTRATION.

The defence forces of New Zealand are administered under "The Defence Act, 1886."

EXPENDITURE ON THE ESTABLISHMENT AND MAINTENANCE OF DEFENCES FROM 1884–85 TO 1898–99.

Year.	Military Expenditure.	Harbour Defences.	Total.
	£	£	£
1884–85	90,816	9,601	100,417
1885–86	91,242	127,167	218,409
1886–87	89,927	139,429	229,356
1887–88	122,061	78,458	195,519
1888–89	53,591	50,089	103,680
1889–90	63,614	15,752	79,366
1890–91	80,891	10,798	91,689
1891–92	75,843	7,644	82,987
1892–93	59,808	11,205	71,013
1893–94	56,570	3,976	60,546
1894–95	62,181	2,495	64,676
1895–96	84,981	3,314	88,295
1896–97	82,443	4,690	87,133
1897–98	83,004	2,525	85,529
1898–99	114,789	10,158	124,947

DÉPÔTS FOR SHIPWRECKED MARINERS.

As eleven of the crew of the barque "Spirit of the Dawn," which was wrecked on Antipodes Island on the 4th September, 1893, remained on the island for eighty-eight days without becoming aware of the existence of the dépôt of provisions and clothing for castaways which is established there, attention may usefully be drawn to the fact that such dépôts are maintained by the New Zealand Government on that island, and on the Auckland, Campbell, Bounty, Kermadec, and Snares Islands.

The following are the positions of the dépôts :—

Auckland Islands.—A dépôt is placed on the south side of Erebus Cove, Port Ross, and another in Camp Cove, Carnley Harbour, and a third at the head of Norman Inlet. One boat is placed on the north-west end of Adams Island, another on Enderby Island, and another on Rose Island.

Campbell Island.—A dépôt is erected in Tucker Cove, Perseverance Harbour, and a boat has been placed at the head of that harbour.

Antipodes Islands.—A dépôt is placed abreast the anchorage on the north-east side of the principal island.

Bounty Islands.—There is a dépôt on the principal island.

Snares Island.—A dépôt has been established on this island in Boat Harbour.

Kermadec Islands.—A dépôt is established on Macaulay Island, near Lava Cascade, on the north-east end of the island, and another on Curtis Island, at the head of Macdonald Cove, on the north-western end of the island.

Finger-posts to indicate the direction of the dépôts have also been put up.

The Government steamer visits the Auckland, Campbell, Antipodes, Bounty, and Snares Islands twice a year, and the Kermadec Islands once a year.

GRAVING DOCKS AND PATENT SLIPS.

VESSELS visiting New Zealand, and requiring docking or repairs, will find ample accommodation at the principal ports of the colony.

There are in New Zealand four graving-docks; two of these are situated in Auckland, one at Lyttelton, and one at Port Chalmers.

AUCKLAND DOCKS.

The Auckland Docks are the property of the Auckland Harbour Board, and cost, with machinery, appliances, &c., £207,000. The dimensions of the docks at Auckland are as follow:—

	Calliope Dock.	Auckland Dock.
Length over all	525 feet.	312 feet.
Length on floor	500 "	300 "
Breadth over all	110 "	65 "
Breadth on floor	40 "	42 "
Breadth at entrance	80 "	43 "
Depth of water on sill at high water ordinary spring tides)	33 "	13½ "

The following is the scale of charges for the use of the Auckland and Calliope Graving Docks and appliances:—

AUCKLAND GRAVING DOCK.	£	s.	d
Entrance fee	1	1	0
For every vessel of 100 tons (gross register), or under, per day	4	0	0
For every vessel over 100 tons (gross register), for first 100 tons, per day	4	0	0
For every additional ton (gross register), per day ..	0	0	2
For two or more vessels docking at the same time, the tonnage of which together does not exceed 100 tons (gross register), per day each	2	10	0

For shores out in docking or hanging the vessel, there must be paid, according to injury done, such amount as may be fixed by the Dock-master.

For use of steam-kiln, 10s. per day.

For use of pitch furnace, 10s. per day.

Calliope Graving Dock.

	£	s.	d.
Entrance fee	5	5	0
For all vessels up to 300 tons (gross register)	20	0	0
For all vessels 301 to 400 tons "	22	10	0
" 401 to 500 tons "	25	0	0
" 501 to 600 tons "	27	10	0
" 601 to 700 tons "	30	0	0
" 701 to 800 tons "	32	10	0
" 801 to 900 tons "	35	0	0
" 901 to 1,000 tons "	37	10	0
" 1,001 to 1,100 tons "	40	0	0
" 1,101 to 1,200 tons "	45	0	0
" 1,201 to 1,300 tons "	50	0	0
" 1,301 to 1,500 tons "	55	0	0
" 1,501 to 2,000 tons "	60	0	0
" 2,001 to 3,000 tons "	65	0	0
" 3,001 to 4,000 tons "	70	0	0
" 4,001 to 5,000 tons "	75	0	0

The foregoing charges are for three days or less. After the third day in dock the following rates are charged:—

For all vessels up to 500 tons (gross register)	4d. per ton per diem.
For all vessels of 501 tons to 1,000 tons	3d. "
For all vessels over 1,001 tons up to 2,000 tons	2½d. "
For all vessels over 2,001 tons and upwards	2d. "

Twenty per cent. reduction on Calliope Dock rates is allowed when two or three vessels can arrange to dock on the same tide, and remain in dock the same number of hours; but such reduction is not allowed if any of the Auckland Harbour Board's vessels are docked at the same time as another vessel.

For shores cut in docking or hanging the vessel, there is to be paid, according to injury done, such amount as may be fixed by the Dockmaster.

During the year 1899, 91 vessels of various descriptions, with a total of 31,800 tons, made use of the Auckland Graving Dock, occupying it in all 154 days 2 hours, for repairs or painting.

In Calliope Dock 7 vessels were docked, viz.: 2 warships and 4 merchant steamers, also 1 dredge, of an aggregate tonnage of 8,575, occupying the dock for 29 days.

Dock dues for the year amounted to £1,305 0s. 7d.

Under arrangement with the Admiralty, a complete plant of the most efficient and modern machinery has been provided at Calliope Dock-yard. The workshops are now under construction, and the machinery is being placed in position. This plant will include 80-ton shear-legs complete, trolly to carry 80 tons and rails, 10-ton steam crane at side of dock, engines, boilers, overhead travellers; planing, shaping, and slotting machines; radial drills, vertical drills, band-saws for iron, punching- and shearing-machines, plate-bending rolls; 24 in.-centre gantry lathe, 70 ft. bed; 9 in. and 12 in. gantry lathes, milling-machines, emery-grinders, screwing-machines, ditto for pipes, horizontal boring-machines, Root's blower, smiths' forges (six), coppersmith's forge, levelling-slabs, steam-hammers, lead-furnace, wall-cranes, zinc-bath, plate-furnace, jib-crane for foundry, circular-saw bench, band-saw for wood, lathe for wood, general joiner, carpenters' benches (four), kiln for steaming boards, Fox's trimmer, cupola to melt 5 tons of metal, countersinking-machine, pipe-bending machine, tools of various descriptions, moulders' bins, force-pumps for testing pipes, vice-benches, electric-light engines, dynamos, &c. (two); and all other appliances and machinery required to render the plant adequate to repair any of Her Majesty's ships upon the station, or any merchant vessel visiting the port. The dock and machinery will be available for use, when not required for Her Majesty's vessels, in effecting repairs to any merchant vessel requiring same. An abundant supply of the purest fresh water is available at Calliope Dock and Calliope Wharf; and upon the completion of the works contemplated a most complete establishment of up-to-date machinery and appliances will have been provided.

WELLINGTON PATENT SLIP.

The Port of Wellington has no dock; but there is a well-equipped patent slip at Evans Bay, on which vessels of 2,000 tons can be safely hauled up. This slip is the property of a private company, and is in no way connected with the Harbour Board. It is 1,070ft. long, with a cradle 260ft. in length. There is a depth of 32ft. at high water at the outer end of the slip. A dolphin and buoys are laid down for swinging ships in Evans Bay.

The company has convenient workshops, which contain machinery necessary for effecting all ordinary repairs to vessels using the slip.

During the year ending 31st March, 1899, eighty-nine vessels of various sizes, of an aggregate of 37,558 tons, were taken up on the slip for repairs, cleaning, painting, &c. The charges for taking vessels on the slip and launching them are 1s. per ton on the gross tonnage for the first full twenty-four hours, and 6d. per ton per day afterwards, unless by special agreement.

OTAGO GRAVING DOCK.

The dock at Port Chalmers is vested in the Otago Dock Trust, a body entirely distinct from the Otago Harbour Board. Vessels of large size can be taken in the Otago Dock, as the following measurements will show:—

Length over all	335 feet.
Length on the floor	328 "
Breadth over all	68 "
Breadth on floor	41 "
Breadth where ship's bilge would be	43 "
Breadth at dock gates	50 "
Depth of water on sill at high-water (ordinary spring tides)	17½ "

Connected with the Otago Dock are a large machine-shop, steam-hammer, and forge, with all the appliances necessary for performing any work that may be required by vessels visiting the port. An 80-ton shear-legs has also been erected for heavy lifts.

There is also a patent slip, used for taking up small vessels.

All vessels using the Otago Graving Dock are liable to dock dues according to the following scale (unless under special contract), revised since the beginning of 1896:—

	£	s.	d.
Vessels under 200 tons, for the first three days, or part of three days	25	0	0
Vessels of 200 tons, and under 800 tons	35	0	0
" 800 tons and upwards	50	0	0

And for every day, or part of a day, after the first three days:—

Vessels under 300 tons	.. 8d.	per register ton per day.
" 300 " and under 400 tons	7¾d.	"
" 400 " " 500 "	7½d.	"
" 500 " " 600 "	7¼d.	"
" 600 " " 700 "	7d.	"
" 700 " " 800 "	6¾d.	"
" 800 " " 900 "	6½d.	"
" 900 " " 1,000 "	6¼d.	"
" 1,000 tons and upwards	6d.	"

During the last twelve months, ending 31st December, 1899, the dock was in use 238 working-days. The number of vessels docked was fifty-seven, having a total registered tonnage of 39,152.

LYTTELTON DOCK AND PATENT SLIP.

The Graving-dock at Lyttelton, which is the property of the Harbour Board, is capable of docking a first-class ironclad, or any of the large ocean steamers except the "Gothic" now running to the colony. Its general dimensions are: Length over all, 503ft.; length on floor, 450ft.; breadth over all, 82ft.; breadth on floor, 46ft.; breadth at entrance, 62ft.; breadth where ship's bilge would be, on 6ft. blocks, 55ft.; depth of water on sill at high-water springs, 23ft.

The scale of charges for the use of the dock and pumping machinery are as follow:—

	£	s.	d.
For all vessels up to 300 tons, for four days or less ..	20	0	0
" 301 to 400 tons, " ..	22	10	0
" 401 to 500 tons, " ..	25	0	0
" 501 to 600 tons, " ..	27	10	0
" 601 to 700 tons, " ..	30	0	0
" 701 to 800 tons, " ..	32	10	0
" 801 to 900 tons, " ..	35	0	0
" 901 to 1,000 tons, " ..	37	10	0
" 1,001 to 1,100 tons, " ..	40	0	0
" 1,101 to 1,200 tons, " ..	45	0	0
" 1,201 tons and upwards, " ..	50	0	0

After the fourth day in dock, the following rates are charged:—

For all vessels up to 500 tons	4d.	per ton per day.
For all vessels of 501 tons to 1,000 tons ..	3d.	"
For all vessels over 1,001 tons up to 2,000 tons ..	2¾d.	"
" 2,001 tons up to 3,000 tons ..	2½d.	"
" 3,001 tons up to 4,000 tons ..	2¼	"
" 4,001 tons up to 5,000 tons ..	2d.	"

Twenty per cent. reduction on the above rates is allowed when two or three vessels can arrange to dock on the same tide and remain in dock the same number of hours. Two vessels of 1,000 tons each can be docked at the same time. The 20-per-cent. rebate is not allowed if any of the Lyttleton Harbour Board's vessels are docked at the same time as another vessel. The twenty-four hours constituting the first day of docking commences from the time of the dock being pumped out.

Any vessel belonging to H.M. Navy or any colonial Government, or any commissioned ship belonging to any foreign nation, is admitted into the graving dock without payment of the usual dock dues, but is charged only such sum as is necessary for the reimbursement of actual expenditure of stores, wages, and materials.

There are electric lights, one on each side of the graving-dock; and there is a workshop alongside the dock, and several other engineering works within a short distance of it, where repairs and heavy foundry-work can be done.

The graving dock and machinery cost £105,000. The interest and sinking fund on that sum, at 6½ per cent., amounts to £6,825 per annum. Since its construction, the dock dues for the seventeen years, ended 31st December, 1899, amounted to £15,683 5s. 1d., and the working expenses to £10,021 16s. 9d., leaving a credit balance for seventeen years, ended 31st December, 1899, of £5,661 8s. 4d.

During the year 1899 twenty-six vessels were docked, and the dock dues amounted to £1,155 12s. For the seventeen years, ending 1899, 331 vessels were docked.

Alongside the graving dock is a Patent slip, with a cradle 150ft. in length, suitable for vessels of 300 tons. It belongs to the Harbour Board.

TIMARU SLIP.

The Timaru slip is capable of taking up a vessel of 200 tons.

NELSON CRADLE.

The Anchor Steamship Company's cradle can take up a vessel of 150 tons.

LIGHTHOUSES.

THE coasts of New Zealand are, considering their extent, fairly well lighted, but there are many places where lights are still required. Additions to the existing lights are made from time to time as funds are available.

Including the lighthouse on East Cape, now building, there are twenty-nine coastal lights—eight of the first order, fifteen of the second, three of the third, and three of smaller orders.

There has been no special difficulty in the erection of lighthouses in New Zealand, apart from the trouble caused by indifferent landings. There are no lighthouses built in the sea, such as the well-known Eddystone or Bell Rock. That on The Brothers is the only one which it is considered necessary to keep as a rock-station: that is, the keepers are relieved from time to time, three being always at the station and one on shore.

The cost of the erection of the lighthouses is given by the Marine Department as about £174,000 (the Ponui Passage Lighthouse, having been built by the Provincial Government of Auckland, the cost is not given). The annual consumption of oil is about 19,800 gallons; and the cost of maintenance, irrespective of the cost of maintaining the lighthouse steamer, is about £13,000 a year.

Besides the coastal lighthouses, there are harbour-lights at most of the ports of the colony for the guidance of vessels into and out of the ports.

The following table shows the names of the lighthouses, indicating also their situation, the order of apparatus, description, period (in seconds) and colour of the lights, and of what material the respective towers are built:—

Name of Lighthouse.	Order of Apparatus.	Description.	Period of Revolving Light.	Colour of Light.	Tower built of.
	Dioptric.		Seconds.		
Cape Maria van Diemen	1st order ..	Revolving	60	White	Timber.
	..	Fixed ..	..	Red, to show over Columbia Reef	
Moko Hinou ..	1st „ ..	Flashing	10	White	Stone.
Tiri-Tiri (Auckland)	2nd „ ..	Fixed ..	..	White, with red arc over Flat Rock	Iron.
Ponui Passage..	5th „ ..	„ ..	..	White and red ..	Timber
Cuvier Island ..	1st „ ..	Revolving	30	White	Iron.
Portland Island	2nd „ ..	„	30	„ ..	Timber.
	..	Fixed ..	..	Red, to show over Bull Rock	
Cape Palliser ..	2nd „ ..	Flashing	Twice every half-minute, with three seconds intervals between flashes	White	Iron.
Pencarrow Head	2nd „ ..	Fixed ..	..	White	Iron.
Cape Egmont ..	2nd „ ..	„ ..	..	„	„
Manukau Head	3rd „ ..	„ ..	..	„	Timber
Kaipara Head ..	2nd „ ..	Flashing	10	„	„
Brothers (in Cook Strait)	2nd „ ..	„	10	„ ..	„
	..	Fixed ..	..	Red, to show over Cook Rock	
Cape Campbell	2nd „ ..	Revolving	60	White	„
Godley Head (Lyttelton)	2nd „ ..	Fixed ..	..	„	Stone.
Akaroa Head ..	2nd „ ..	Flashing	10	„	Timber.
Moeraki ..	3rd „ ..	Fixed ..	..	„	„
Taiaroa Head ..	3rd „ ..	„ ..	..	Red	Stone.
Cape Saunders..	2nd „ ..	Revolving	60	White	Timber.
Nugget Point ..	1st „ ..	Fixed ..	..	„	Stone.
Waipapapa Point	2nd „ ..	Flashing	10	„	Timber.
	Catadioptric.				
Dog Island ..	1st order ..	Revolving	30	„	Stone.
	Dioptric.				
Centre Island ..	1st order ..	Fixed ..	..	White, with red arcs over inshore dangers	Timber.
Puysegur Point	1st „ ..	Flashing	10	White	„
Cape Foulwind	2nd „ ..	Revolving	30	„	„
Farewell Spit ..	2nd „ ..	„	60	White, with red arc over Spit end	„
Nelson ..	4th „ ..	Fixed ..	..	White, with red arc to mark limit of anchorage	Iron.
French Pass ..	6th „ ..	„ ..	..	Red and white, with white light on beacon	
Stephens Island	1st „	Group flashing	30	White	„
East Cape (now building)	2nd „ ..	Revolving	10	„	„

ANNUAL PENSIONS

PAID BY THE GOVERNMENT OF NEW ZEALAND, AS ON 31ST MARCH, 1900.

[By an Act passed in 1871 the pension system was abolished in New Zealand. In 1893 the Civil Service Insurance Act was passed, the main provisions of which are described at the end of this table.]

Name.	Date from which Pension commenced.	Amount.		
Under "The Civil Service Act, 1866."		£	s.	d.
Andrews, A. ..	1 May, 1896	141	12	0
Arrow, H. ..	1 Aug., 1881	26	0	0
Austin, A. D. ..	1 Oct., 1887	247	10	0
Anderson, J. G. ..	6 Jan., 1896	261	18	1
Baddeley, H. C. ..	12 Jan., 1888	225	0	0
Baker, E. ..	1 Nov., 1880	214	17	1
Barnes, G. H. ..	16 Feb., 1896	100	0	0
Barr, A. ..	1 Oct., 1888	366	13	4
Batkin, C. T. ..	1 April, 1890	533	6	0
Bertrand, J. R. ..	17 Feb., 1895	135	0	0
Bicknell, F. ..	1 Feb., 1882	96	13	4
Blomfield, J. ..	21 Mar., 1889	101	15	0
Bridson, W. ..	1 Aug., 1893	146	8	7
Brown, W. R. E.	1 Aug., 1892	265	16	8
Burgess, A. ..	1 June, 1886	116	13	4
Buro, J. F. ..	1 July, 1887	51	0	0
Butts, E. D. ..	1 April, 1893	258	6	8
Campbell, F. E. ..	1 Mar., 1890	466	13	0
Carrington, O. ..	1 Feb., 1878	300	0	0
Catley, J. T. ..	1 Oct., 1898	223	6	8
Cheeseman, G. H.	1 Mar., 1893	82	10	0
Cheesman, W. F.	1 April, 1890	154	15	1
Clarke, H. T. ..	1 Jan., 1879	400	0	0
Clarke, H. ..	1 Oct., 1879	98	13	0
Cook, R. C. ..	1 Sept., 1895	160	14	3
Costall, J. ..	10 July, 1892	131	3	10
Creeke, W. ..	1 April, 1891	52	15	8
Crowe, A. ..	31 Dec., 1885	68	12	3
Culpan, W. ..	1 Dec., 1868	62	10	0
Cunningham, J. ..	1 Feb., 1888	175	0	0
Dick, S. J. ..	1 Feb., 1893	250	0	0
Dickey, A. J. ..	1 Nov., 1875	122	0	5
Earle, J. ..	13 Nov., 1888	104	10	0
Eliott, G. E. ..	30 Nov., 1872	400	0	0
Elliott, S. ..	1 July, 1898	110	11	4
Falck, F. ..	1 Mar., 1893	125	13	4
Ferguson, J. ..	1 Feb., 1897	195	0	0
Filleul, W. G. ..	16 April, 1896	140	16	8
Freeth, J. J. ..	1 Mar., 1894	116	13	4
Gill, R. J. ..	1 Sept., 1886	228	11	5
Graham, G. H. ..	8 Sept., 1891	52	10	0
Gregory, J. ..	16 Feb., 1881	53	6	8
Greenway, J. H.	1 Nov., 1891	116	16	0
Giles, J. ..	1 Feb., 1894	238	6	8
Under "The Civil Service Act, 1866"—ctd.		£	s.	d.
Halliday, C. ..	31 Aug., 1886	96	13	4
Hamilton, M. ..	11 July, 1880	200	0	0
Hart, J. T. ..	12 Nov., 1890	193	7	0
Haselden, C. J. A.	1 July, 1896	255	19	1
Hebberley, J. ..	1 June, 1898	70	0	0
Heddell, P. ..	17 Oct., 1894	90	0	0
Henn, J. ..	1 April, 1893	88	3	4
Hill, C. J. ..	9 Feb., 1895	72	0	0
Holden, T. ..	13 Oct., 1878	31	5	0
Jackman, S. J. ..	1 May, 1892	149	6	8
Johnson, J. W. ..	1 May, 1898	78	1	6
Johnston, D. ..	15 Dec., 1880	366	13	4
Judd, A. ..	1 April, 1887	173	6	8
Keetley, E. ..	1 July, 1884	18	12	10
Keily, J. D. ..	1 July, 1891	130	19	0
Kissling, T. ..	1 Jan., 1894	317	5	2
Laing, E. B. ..	1 April, 1887	112	10	0
Laing, W. ..	1 Feb., 1896	212	10	0
Lang, A. ..	1 Feb., 1893	75	15	3
Lemon, C. ..	1 Mar., 1895	350	0	0
Lincoln, R. S. ..	1 Mar., 1889	68	17	0
Lodge, W. F. ..	1 Oct., 1881	185	0	0
Lubecki, A. D. ..	1 April, 1896	200	0	0
Lusher, R. A. ..	31 Aug., 1880	76	16	8
Millar, G. ..	1 Feb., 1896	80	7	0
Miller, F. ..	1 April, 1899	141	13	4
Mitford, G. M. ..	1 Feb., 1869	196	15	0
Monson, J. R. ..	1 Oct., 1882	271	16	0
Monro, H. A. H.	1 Nov., 1880	342	17	2
Morpeth, W. J. ..	4 Aug., 1894	195	4	9
Morrow, H. ..	1 June, 1890	120	16	8
Macarthur, J. ..	1 Jan., 1876	65	0	0
McCulloch, H. ..	1 Aug., 1890	233	0	0
MacDonnell, R. T.	23 July, 1890	150	0	0
McKellar, H. S. ..	1 Aug., 1892	433	6	8
Norris, E. F. ..	1 Oct., 1895	88	17	9
Nuttall, J. ..	1 July, 1897	74	13	4
O'Brien, L. ..	1 April, 1896	273	5	0
O'Connor, R. ..	1 Sept., 1892	147	0	6
Parker, T. W. ..	1 June, 1881	242	3	9
Parris, R. ..	1 Jan., 1877	314	5	8
Pearson, W. H. ..	30 Sept., 1884	340	9	6
Phillips, W. M. ..	1 Dec., 1894	69	4	5
Pickett, R. ..	1 Aug., 1866	209	10	6

ANNUAL PENSIONS—*continued.*

Under "The Civil Service Act, 1866"—continued.

Name.	Date from which Pension commenced.	Amount. £	s.	d.
Pinwill, A. ..	1 July, 1891	120	17	0
Pitt, H. ..	1 May, 1881	100	0	0
Powell, D. ..	1 July, 1893	44	1	8
Rawson, C. E. ..	1 Dec., 1895	244	0	11
Rennell, W. ..	1 Dec., 1895	167	18	4
Rich, E. F. ..	1 June, 1892	217	0	0
Robertson, J. ..	6 Oct., 1892	155	0	0
Rodgerson, W. J.	1 July, 1892	248	6	8
Rowe, C. ..	1 Oct., 1894	109	16	0
Searancke, W. N.	1 Feb., 1879	240	0	0
Shrimpton, J. ..	16 July, 1889	146	14	0
Sinclair, A. ..	1 June, 1878	195	0	0
Slater, J. ..	1 April, 1898	223	16	2
Smith, J. ..	1 June, 1894	49	5	6
Smith, J. E. ..	1 July, 1877	484	11	6
Smith, T. H. ..	1 July, 1876	371	8	7
Snoswell, T. ..	5 Dec., 1891	83	14	0
Snow, C. H. ..	1 Dec., 1887	157	10	0
Somerville, W. ..	1 July, 1896	195	0	0
Stevens, F. ..	1 Dec., 1892	183	0	0
Stewart, J. T. ..	1 May, 1889	300	0	0
Thomas, G. W. ..	1 Nov., 1875	38	15	0
Thompson, R. ..	1 Mar., 1896	220	0	0
Tizard, E. F. ..	1 July, 1888	180	19	0
Tovey, J. H. ..	1 April, 1895	77	0	10
Treseder, P. ..	13 Oct., 1897	184	3	4
Tucker, W. ..	31 Dec., 1880	104	13	4
Veal, J. ..	1 Sept., 1885	49	15	3
Veale, J. S. ..	1 Sept., 1887	56	2	10
Von Sturmer, S...	1 July, 1895	288	1	11
Wardell, H. S. ..	1 July, 1888	366	13	0
Watson, R. ..	1 Oct., 1892	145	0	0
White, W. ..	1 July, 1881	36	5	0
White, W. B. ..	1 July, 1873	375	4	9
Williams, E. M...	1 April, 1880	135	0	0
Wilson, W. W. ..	1 Feb., 1881	100	14	3
Woon, J. G. ..	1 July, 1892	209	10	6
Wrigg, H. C. W.	1 Aug., 1889	157	2	10
Young, C. ..	8 Mar., 1899	117	6	1

Under "The Hamerton Pension Act, 1891."

Name.	Date from which Pension commenced.	Amount. £	s.	d.
Hamerton, R. C.	11 Sept., 1891	250	0	0

Under "The Meredith and Others Pensions Act, 1870."

Name.	Date from which Pension commenced.	Amount. £	s.	d.
Hamlin, Rhoda B.	— 1865	50	0	0

Under "The Military Pensions Act, 1866."

Name.	Date from which Pension commenced.	Amount. £	s.	d.
Arapera te Reo	1 July, 1870	20	0	0
Brown, M. R. ..	..	75	0	0
Hastings, L. ..	..	55	0	0
Iritona, Hanita	8 Nov., 1868	12	0	0
Marara, Ngakoa	3 Dec., 1860	36	0	0
McDonald, E.	..	36	0	0
Morrison, Ann..	26 Oct., 1866	36	0	0
Russell, C. ..	..	36	0	0
Von Tempsky, A.	3 Oct., 1868	120	0	0
Adamson, T. ..	(a)	0	2	2*
Beamish, J. G.	(b)	0	1	6*
Corbett, George	(c)	0	2	0*
Crawford, C. F.	..	0	2	0*
Dore, G. H. ..	(d)	0	2	0*
Gibbons, M. C...	12 Oct., 1869	0	2	2*
Hamblyn, J. ..	1 Oct., 1872	0	2	2*
Hope, E. L. ..	(e)	0	1	6*
Kelly, T. ..	9 April, 1870	0	2	2*
Kershaw, P. ..	9 Aug., 1869	0	1	6*
Lacey, Garrett..	..	0	2	2*
Lake, T. ..	..	0	2	6*
Lloyd, T. ..	(f)	0	2	0*
McDonnell, W.	..	150	0	0
McDougall, T. R.	1 April, 1898	40	0	0
McKay, G. ..	..	0	1	0*
McMahon, T. ..	(g)	0	2	0*
Monck, J. B. ..	1 April, '72 (h)	0	1	0*
Ross, Edward O.	17 Nov., 1866	75	0	0
Shanaghan, J...	..	0	1	6*

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* Per diem.

(a) 1s. 6d. from 25th October, 1869; increased to 2s. 2d., 7th December, 1870.

(b) 1s. from 17th December, 1868, to 17th December. 1869; 1s. 6d. from 17th December, 1869, to 17th December, 1870; 8d. from 17th December, 1870, to 30th September, 1874; increased to 1s. 6d. 1st October, 1874.

(c) 2s. from 5th June, 1867, to 5th June, 1868; 2s. from 5th June, 1868, to 5th June, 1869; permanent from 9th November, 1869.

(d) 2s. from 1st January, 1869, for eighteen months; permanent from 18th May, 1872.

(e) 1s. 6d. for twelve months, from 26th April, 1869; renewed for twelve months, 1870; renewed for twelve months, 1871; permanent from 12th May, 1872.

(f) 2nd October, 1869; ceased on 9th April, 1870; renewed, 22nd April, 1874.

1s. 6d. from —, 1867; increased to 2s. from 14th February, 1868.

1s. 6d. for twelve months, from 15th March, 1869; 1s. for twelve months, from March, 1870; 1s. for twelve months, from March, 1871; permanent from 1st April, 1872.

ANNUAL PENSIONS—*continued.*

Name.	Date from which Pension commenced.	Amount.		
Under "The Military Pensions Act, 1866" —continued.				
		£	s.	d.
Shepherd, R. ..	(i)	0	2	8*
Timms, W. ..	(k)	0	1	6*
Tuffin, G. ..	..	0	2	2*
Vance, R. ..	8 April, 1870	0	2	2*
Walsh, W. ..	15 Nov., 1866	0	1	6*
Wasley, Edw. O.	(l)	0	2	2*
Williamson, F.	1 June, 1869	0	2	0*
Anaru Papapu..	14 May, 1865	0	0	9*
Apera te Keunga	14 May, 1864	0	2	6*
Karena Ruatani-wha	1 July, 1870	0	1	0*
Matiu Whitiki..	1 April, 1885	0	0	6*
Mauparoa ..	1 July, 1867	0	1	0*
Mehaka Kepa ..	2 Aug., 1865	0	0	9*
Pera Taitimu ..	12 Oct., 1869	0	1	0*
Under "The Walsh and Other Pensions Act, 1869."				
Hewett, Ellen A.	10 Feb., 1865	50	0	0
Under "The Militia Act Amendment Act, 1862."				
		£	s.	d.
Bending, W. ..	..	0	2	0*
Bilton, F. ..	..	0	2	0*
Cody, W. ..	..	0	1	0*
Dunn, A. J. N...	..	0	2	0*
King, E. M. ..	..	80	0	0
Leaf, R. ..	(m)	0	0	6*
Sarten, Lucy ..	1864	0	2	0*
Skinner, W. H.	..	0	2	6*
Vickery, W. ..	..	0	2	0*
Woolfe, T. ..	..	0	2	0*
Under "The Schafer, McGuire, and Others Pensions Act, 1872."				
McGuire, E. ..	29 Sept., 1871	0	1	0*
Russell, W. ..	1 July, 1871	0	1	0*
Schafer, C. ..	1 July, 1871	80	0	0
Under "The Supreme Court Judges Act, 1874."				
Gresson, H. B...	1 April, 1875	750	0	0

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* Per diem.

(i) 3s. for twelve months, from 9th April, 1870; 2s. 8d., permanent, from 1st May, 1871.

(k) 1s. 6d. for twelve months, from 18th October, 1869; 1s. 6d. for twelve months, from October, 1870; permanent, from 5th November, 1871.

(l) 1s. 6d. for eight months, from 20th September, 1869; 2s. 2d. for twelve months, from 11th June, 1870; 2s. 2d. for twelve months, from 11th June, 1871; 2s. 2d. from 11th June, 1872; permanent from 12th June, 1873.

(m) 1s. from 10th May, 1865; renewed for twelve months, April, 1866; again renewed for twelve months; 8d. for twelve months, from 1868 to 10th May, 1869; 6d. for twelve months, from May, 1869; permanent from 11th May, 1870.

New Zealand Cross Gratuities (£10 per Annum).

Adamson, Thomas. 7th May, 1869.
Austin, Samuel, 10th March, 1869.
Black, Solomon, 10th March, 1869.
Biddle, Benjamin, 10th March, 1869.
Hill, George, 10th April, 1869.
Lingard, William, 10th March, 1869.
Mace, Francis Joseph, 10th March, 1869.
Maling, Christopher, 10th March, 1869.
Mair, Gilbert, 7th February, 1870.
Preece, George, 10th March, 1869.
Roberts, John Mackintosh, 10th March, 1869.
Rodriguez, Antonio, 10th March, 1869.
Shepherd, Richard, 13th March, 1869.
Smith, Angus, 7th June, 1869.

Miscellaneous Pensions.

Pensions of late Provincial Government, Nelson—Mrs. Robinson's three daughters, £100.

Pension to Mrs. Elizabeth Ford, £46; pension of late F. G. Rawson continued to his widow, £45; pension to Aperahama Tahumirangi for wounds received when in the service of the New Zealand Government, £10.

"THE CIVIL SERVICE INSURANCE ACT, 1893."

It is provided by the above-named Act that every person appointed to the Civil Service under "The Civil Service Reform Act, 1886," shall retire at the age of sixty years; but the Governor in Council may, nevertheless, require any officer who has attained such age to continue to perform his duties, unless unfitted by reason of ill-health or other cause. It is also provided that if any officer appointed under "The Civil Service Reform Act, 1886," shall become permanently incapacitated through no fault of his own he shall receive compensation equal to one month's salary for each year of service. It is further provided that every officer under a certain age, to be fixed by regulations, appointed after the passing of this Act shall effect a policy on his (or her) own life with the Life Insurance Commissioner, providing the following combined benefits:—

(1.) The payment of a sum of money on the death of such officer, should it occur before he attains the age of sixty years (or after that age, in consideration of his paying the necessary additional premium); and

(2.) The payment to such officer of an annuity until death should he survive the age of sixty years.

The policies and moneys secured thereby are not assignable, and cannot be charged or attached, unless the officer leaves the service voluntarily or otherwise, when he may either surrender the policy or maintain it in force, as he may choose.

The premiums are paid in the form of monthly deductions from salaries, according to the following schedule:—

Salary per Annum.	Monthly Deduction from Salary.			Yearly Deduction.		
	£	s.	d.	£	s.	d.
Under £150	0	8	4	5	0	0
£150 and under £200	0	12	6	7	10	0
£200 „ £250	0	16	8	10	0	0
£250 „ £300	1	0	10	12	10	0
£300 „ £350	1	5	0	15	0	0
£350 „ £400	1	9	2	17	10	0
£400 „ £450	1	13	4	20	0	0
£450 „ £500	1	17	6	22	10	0
£500 „ £550	2	1	8	25	0	0
£550 „ £600	2	5	10	27	10	0
£600 „ £650	2	10	0	30	0	0
£650 „ £700	2	14	2	32	10	0
£700 „ £750	2	18	4	35	0	0
£750 „ £800	3	2	6	37	10	0
£800	3	6	8	40	0	0

When the salary is increased so that it falls in the next higher category in the schedule, the deductions and benefits are also proportionately increased, according to the then present age of the policyholder, by indorsement of the policy.

By regulations under the Act, made by the Governor in Council, dated 8th March, 1894, scales of benefits were adopted. For every £5 annually deducted from the salary in accordance with the schedule already given there is provided a temporary insurance of £100 (constant at all ages at entry), ceasing at age sixty, together with a deferred annuity (varying with the age at entry from £63 11s. 1d. at age fifteen to £10 10s. 5d. at age forty) after the age of sixty. By consenting to a small additional deduction from salary, any officer may have the insurance continued after age sixty to the end of life. Newly-appointed officers who are over forty are allowed the option of acumulating 5 per cent. of their salaries in the Public Trust Office, or of taking out insurances or annuities in the Government Insurance Department.

At the end of 1899 there were 290 Civil Service policies in force, insuring £42,655 (including bonuses), and providing deferred annuities amounting to £11,954. Twenty-six policies had been lapsed or surrendered, insuring £4,565 at death, with £1,074 deferred annuities; four policies, insuring £556, had become claims by death; and the holders of seven policies, insuring £2,513 (with £168 deferred annuities), had left the Civil Service, but elected to continue their policies with the Insurance Department.

These policies, placed in separate tables, are merged in the general business of the Insurance Department, and share in the periodical distributions of profits. At successive valuations the necessary reserve is made to fully cover the liability which has accrued upon each of the contracts, thus avoiding the possibility of any future danger such as has overtaken so many pension schemes administered on unsound principles. Indeed, it may be said that two of the greatest benefits conferred upon the participants in this scheme are the avoidance of fluctuation in the fund through amalgamating with a large insurance institution, and the possession of fixed and irrevocable contracts, clearly defining the benefits to be received at death or by way of pension.

NEW ZEALAND NEWSPAPERS.

There are (January, 1900) 219 publications on the register of newspapers for New Zealand. Of these, 51 are daily papers, 32 are published twice a week, 42 three times a week, 61 once a week, 3 fortnightly, 1 three times a month, and 29 monthly.

The names of the newspapers, with the postal districts and towns in which they are printed, are given in the following list, the second column showing the day or period of publication.

M. signifies morning paper; E. evening paper:—

AUCKLAND.

Auckland—

Auckland Evening Star (E.)	Daily.
Auckland Weekly News and Town and Country Journal (M)	Saturday

Auckland—*continued.*	
Bible Standard (M.)	Monthly.
Christian Worker	„
Church Gazette (M.)	„
Danica (M.)	Thrice monthly (1st, 10th, 20th).
New Zealand A B C Guide	Monthly.
New Zealand Farmer, Bee and Poultry Journal (M.)	„
New Zealand Graphic, Ladies' Journal, and Youths' Companion	Wednesday.
New Zealand Herald (M.)	Daily.
New Zealand Illustrated Magazine	Monthly.
New Zealand Illustrated Sporting Review and Licensed Victualler's Gazette (M.)	Thursday.
New Zealand Joyful News	Monthly.
New Zealand Punch (M.)	Wednesday.
Observer (M.)	Saturday.
Produce Circular and Monthly Report (M.)	Monthly.
Sharland's Trade Journal	Saturday.
Coromandel—	
Coromandel County News (E.)	Mon., Wed., Fri.
Dargaville—	
Wairoa Bell and Northern Advertiser (E.)	Tu., Fri.
Hamilton—	
Waikato Argus (M.)	Tu., Th., Sat.
Waikato Times and Thames Valley Gazette (E.)	Daily.
Kawakawa—	
Northern Luminary (E.)	Friday.
Onehunga—	
Manukau County Chronicle (M.)	Saturday.
Weekly Onehunga Independent and District Advertiser (M.)	Saturday.
Rotorua—	
Hot Lakes Chronicle (M.)	Saturday.
Whangarei—	
Northern Advocate (E.)	Friday.

THAMES.

Karangahake—	
Goldfields Advocate and Ohinemuri County Chronicle (M.)	Tu., Th., Sat.
Opotiki—	
Opotiki Herald, Whakatane County and East Coast Gazette (E.)	Tuesday, Friday.
Paeroa—	
Hauraki Tribune and Thames Valley Advertiser (M.)	Tu., Th., Sat.
Ohinemuri Gazette (M.)	Wed., Saturday.
Tauranga—	
Bay of Plenty Times and Thames Valley Warden (E.)	Mon., Wed., Fri.
Tauranga Herald and Te Puke Gazette (M.)	Tuesday, Friday.
Te Aroha—	
Te Aroha and Ohinemuri News and Upper Thames Advocate (M.)	Tu., Th., Sat.
Thames—	
Thames Star (E.)	Daily.
Thames Advertiser and Miners' News (M.)	„
Waihi—	
Waihi Chronicle (M.)	Wed., Saturday.
Waihi Miner and Hauraki Goldfield Gazette (E.)	Daily.
Waitekauri—	
Golden Age (E.)	Wed., Sat.

GISBORNE.

Gisborne—	
Poverty Bay Herald (E.)	Daily.
Telephone (M.)	Wed., Saturday.

NEW PLYMOUTH.

Inglewood—	
Record and Waitara Age (M.)	Wed., Saturday
Weekly Record (M.)	Saturday.
New Plymouth—	
Budget and Taranaki Weekly Herald (M.)	„
Daily News (M.)	Daily.
Stockwhip (M.)	Sat., fortnightly.
Taranaki Herald (E.)	Daily.
Taranaki News (M.)	Saturday.
Opunake—	
Opunake Times (E.)	Tuesday, Friday.
Stratford—	
Egmont Post (E.)	Tu., Th., Sat.
Egmont Settler (E.)	Mon., Wed., Fri.
Waitara—	
Waitara Evening Mail and Clifton County Chronicle (E.)	Mon., Wed., Fri.
Waitara Times and Clifton County Gazette (M.)	Mon., Wed., Fri.

NAPIER.

Dannevirke—	
Bush Advocate (E.)	Tu., Th., Sat.
Morning Press (M.)	Tu., Th., Sat.
Hastings—	
Hastings Standard (E.)	Daily.
Napier—	
Daily Telegraph (E.)	Daily.
Hawke's Bay Herald (M.)	„
New Zealand Fire and Ambulance Record	Monthly.
Waipawa—	
Waipawa Mail (E.)	Tues., Thur., Sat.
Wairoa—	
Wairoa Guardian and County Advocate (M.)	Tuesday, Friday.

WANGANUI.

Eltham—	
Eltham Argus and District Advertiser (M.)	Tu., Th., Sat.
Eltham Guardian; Kaponga, Ngaire, Te Roti, Hawera, Stratford, and Cardiff Advertiser (M.)	Tu., Th., Sat.
Hawera—	
Egmont Star (M.)	Saturday.
Hawera and Normanby Star, Patea County Chronicle, and Waimate Plains Gazette (E.)	Daily.
Hawera Morning Post, Patea, Normanby, Eltham, Stratford, Kaponga, Manaia, and Opunake Register (M.)	Tu., Th., Sat.
Hunterville—	
Paraekaretu Express, Hunterville, Ohingaiti, Moawhango, and Rata Advertiser (M.)	Tuesday, Friday.
Manaia—	
Waimate Witness (E.)	Mon., Wed., Fri.
Mangaweka—	
Mangaweka Mail, and Ohingaiti, Rangiwhaia, Utiku, Taihape, and Moawhango Courier (M.)	Wed., Saturday.
Mangaweka Settler, and Ohingaiti, Rangiwhaia, Taihape, and Waimarino Advertiser (M.)	Wed., Sat.
Marton—	
Rangitikei Advocate and Manawatu Argus (E.)	Daily.
Patea—	
Patea County Press (E.)	Mon., Wed., Fri.
Raetihi—	
Waimarino Argus and Raetihi, Ohakune, Karioi, Pipiriki, and Upper Wanganui Advocate (M.)	Tuesday.

Wanganui—	
Jubilee (M.)	Tuesday.
Wanganui Chronicle and Patea-Rangitikei Advertiser (M.)	Daily.
Wanganui Herald (E.)	Daily.
Weekly Chronicle and Patea-Rangitikei Record (M.)	Saturday.
Yeoman (M.)	Friday.

WELLINGTON.

Carterton—	
Wairarapa Leader (E.)	Mon., Wed., Fri.
Wairarapa Observer, Featherston Chronicle, East Coast Advertiser, and South County Gazette (E.)	Tues., Thur., Sat.
Eketahuna—	
Eketahuna Express and North Wairarapa Courier (E.)	Tu., Th., Sat.
Feilding—	
Feilding Star (E.)	Daily.
Foxton—	
Manawatu Herald (E.)	Tues., Thur., Sat.
Greytown—	
Wairarapa Standard and Featherston Advocate (E.)	Mon., Wed., Fri.
Levin—	
Manawatu Farmer and Horowhenua County Chronicle (E.)	Mon., Wed., Fri.
Masterton—	
Wairarapa Daily Times (E.)	Daily.
Wairarapa Star (E.)	"
Weekly Star and Wellington District Advertiser (M.)	Thursday.
Otaki—	
Otaki Mail and Horowhenua County and West Coast Advertiser (M.)	Tu., Thur., Sat.
Pahiatua—	
Pahiatua Herald (E.)	Mon., Wed., Fri.
Palmerston North—	
Manawatu Daily Standard, Rangitikei Advertiser, and West Coast Gazette (E.)	Daily.
Manawatu Daily Times (E.)	"
Petone—	
Hutt and Petone Chronicle (M.)	Wednesday.
Wellington—	
Advocate (M.)	Tuesday.
Church Chronicle (M.)	Monthly.
Evening Post (E.)	Daily.
Guardian (E.)	Thursday.
Mercantile Protection Gazette of New Zealand (M.)	Saturday.
New Zealand Craftsman (M.)	Monthly.
New Zealand Cyclists' Touring Club Gazette	"
New Zealand Dairyman and Dairy Messenger (E.)	"
New Zealand Field (M.)	Friday.
New Zealand Insurance, Finance, and Mining Journal (M.)	Monthly.
New Zealand Mail, Town and Country Advertiser (M)	Friday.
New Zealand Mines Record (M.)	Monthly.
New Zealand Times (M.)	Daily.
Pioneer of Social Reform (M.)	Monthly.
Register and Property Investors' Guide	Monthly.
Wellington Price Current and New Zealand Trade Review (M)	Monthly.
Woodville—	
Woodville Examiner (E.)	Mon., Wed., Fri.

BLENHEIM.

Blenheim—	
Marlborough Daily Times and Town and Country Advertiser (M.)	Daily.
Marlborough Express (E.)	"

velock—	
Pelorus Guardian and Miners' Advocate (M.)	Tuesday, Friday.
Picton—	
Marlborough Press, County of Sounds Gazette (M.)	Tuesday, Friday.

NELSON.

Brightwater—	
Brightwater Independent Chronicle (M.)	Thursday.
Collingwood—	
Golden Bay Argus (E.)	Thursday.
Nelson—	
Colonist (M.)	Daily.
Nelson Evening Mail (E.)	„
Takaka—	
Takaka News and Collingwood Advertiser (E.)	Thursday.

WESTPORT.

Charleston—	
Charleston Herald, Brighton Times, and Croninville Reporter (M.)	Wed., Saturday.
Murchison—	
Buller Post (E.)	Thursday.
Westport—	
Buller Miner (M.)	Friday.
Westport News (M.)	Daily.
Westport Times and Evening Star (E.)	„

GREYMOUTH.

Brunnerton—	
Brunner News, Blackball Courier, and Grey Valley Advertiser (E.)	Daily.
Greymouth—	
Evening Star and Brunnerton Advocate (E.)	„
Grey River Argus (M.)	„
Weekly Argus (M.)	Weekly.
Reefton—	
Inangahua Herald and New Zealand Miner (M.)	Daily.
Inangahua Times and Reefton Guardian (E.)	„

HOKITIKA.

Hokitika—	
Hokitika Guardian and Evening Star (E.)	Daily.
Leader (M.)	Saturday.
West Coast Times (E.)	Daily.
Kumara—	
Kumara Times and Dillman's and Goldsborough Advertiser (E.)	„
Ross—	
Ross and Okarito Advocate and Westland Advertiser (M.)	Wed., Saturday.

CHRISTCHURCH.

Akaroa—	
Akaroa Mail and Banks Peninsula Advertiser (M.)	Tuesday, Friday.
Ashburton—	
Ashburton Guardian (E.)	Daily.
Ashburton Mail, Rakaia, Mount Somers, and Alford Forest Advertiser (M.)	Tues., Thur., Sat.
Ashburton Standard and Farmers' Advocate (M.)	Mon., Wed., Fri.
Cheviot—	
Cheviot News (M.)	Tues., Fri.
Christchurch—	
Canterbury Times (M.)	Wednesday.
Lyttelton Times (M.)	Daily.
Mercantile and Bankruptcy Gazette of New Zealand (E.)	Thursday.

Christchurch—*continued.*	
New Zealand Baptist	Monthly.
New Zealand Church News (M.)	"
New Zealand Cyclist (M.)	Saturday.
New Zealand Railway Review	Monthly.
New Zealand Schoolmaster (E.)	"
New Zealand War Cry and Official Gazette of the Salvation Army (M.)	Saturday.
New Zealand Wheelman	Wednesday.
Press (M.)	Daily.
Prohibitionist	Fortnightly, Fri.
Spectator (M.)	Wednesday.
Star (E.)	Daily.
Truth (E.)	Daily.
Weekly Press (incorporating the "Referee") (M.)	Wednesday.
Oxford (East)—	
Oxford Observer (M.)	Saturday.
Kaikoura—	
Kaikoura Star and North Canterbury and South Marlborough News (E.)	Tu., Fri.
Rangiora—	
Rangiora Standard and North Canterbury Guardian (M.)	Wed., Saturday.
Southbridge—	
Ellesmere Guardian (M.)	" "

TIMARU.

Geraldine—	
Geraldine Advocate (M.)	Mon., Wed., Fri.
Mackenzie County Chronicle (E.)	" " "
Pleasant Point Mail (E.)	" " "
Temuka Times (E.)	" " "
Temuka—	
Geraldine Guardian (M.)	Tues., Thur., Sat.
Gladstone Guardian (M.)	Mon., Wed., Fri.
Temuka Leader (M.)	Tues., Thr., Sat.
Timaru—	
Morning Post (M.)	Daily.
South Canterbury Times (E.)	Daily.
Timaru Herald (M.)	Daily.
Waimate—	
Waimate Advertiser (M.)	Saturday.
Waimate Times (M.)	Tues., Thr., Sat.

OAMARU.

Oamaru—	
North Otago Times (M.)	Daily.
Oamaru Mail (E.)	"

DUNEDIN.

Alexandra South—	
Alexandra Herald and Central Otago Gazette (M.)	Thursday.
Balclutha—	
Clutha Leader (M.)	Tuesday, Friday.
Free Press (M.)	" "
Clyde—	
Dunstan Times, Vincent County Gazette, and General Goldfields Advertiser (M.)	Friday.
Cromwell—	
Cromwell Argus and Northern Goldfields Gazette (M.)	Tuesday, Sat.
Cromwell Times	Tuesday, Friday.
Dunedin—	
Christian Outlook (M.)	Saturday.
Evening Star (E.)	Daily.
Farmers' Circular (M.)	Thur., fortn'ly

Dunedin—*continued.*	
Katipo	Monthly.
New Zealand Guardian (M.)	Monthly.
New Zealand Journal of Education	„
New Zealand Mining Journal and Financial Guide (M.)	„
New Zealand Tablet (M.)	Friday.
Otago Daily Times (M.)	Daily.
Otago Witness (M.)	Thursday.
Otago Workman, Dunedin and Suburban Advertiser (M)	Saturday.
Schoolmates	Monthly.
Temperance Standard	„
Trade Review and Farmers' Gazette (M.)	Thursday.
Triad (M.)	Monthly.
Weekly Budget (M.)	Saturday.
Lawrence—	
Tuapeka Recorder (M.)	Friday.
Tuapeka Times (M.)	Wed., Saturday.
Milton—	
Bruce Herald (M.)	Tuesday Friday.
Mosgiel—	
Taieri Advocate (M.)	Wed., Saturday.
Naseby—	
Mount Ida Chronicle (E.)	Friday (twice).
Palmerston—	
Palmerston and Waikouaiti Times (M.)	Friday.
Roxburgh—	
Mount Benger Mail (M.)	Saturday.
Tapanui—	
Tapanui Courier and Central Districts Gazette (M.)	Wednesday.

INVERCARGILL.

Arrowtown—	
Lake County Press (E.)	Thursday.
Gore—	
Mataura Ensign (E.)	Tues., Th., Sat.
Southern Standard (M.)	Tuesday, Friday.
Invercargill—	
Southern Cross (M.)	Saturday.
Southlander (M.)	Friday.
Southland Daily News (E.)	Daily.
Southland Times (M.)	„
Weekly Times (M.)	Friday.
Queenstown—	
Lake Wakatipu Mail (E.)	„
Riverton—	
Orepuki Miner (E.)	Tues., Th., Sat.
Otautau Mail and Wallace County Advertiser (M.)	„ „ „
Riverton Times and Wallace County Advertiser (E.)	„ „ „
Western Star and Wallace County Gazette (M.)	Tues., Fri.
Winton—	
Winton Record and Hokonui Advocate (M.)	Friday.
Wyndham—	
Wyndham Farmer (M.)	Mon., Wed., Fri.
Wyndham Herald (M.)	Wed., Friday.

The foregoing towns are arranged according to the postal district in which they are situated.

Taking the provincial districts, Auckland has 40 publications registered as newspapers, Taranaki 12, Hawke's Bay 8, Wellington 49, Marlborough 4, Nelson 13, Westland 8, Canterbury 37, and Otago 48.

CUSTOMS DUTIES AMENDMENT ACT, 1900.

THE above Act, dated 15th September, brings into force the following alterations of duties, and exemptions :—

DUTIES IMPOSED.

Names of Articles.	Rates of Duty.			
	£	s.	d.	
Tea	0	0	2	the lb.
Currants and raisins	0	0	1	„
Candles	0	0	1	the lb. or package of that reputed weight, and so in proportion for packages of greater or less reputed weight.
Cocoa	0	0	3	the lb.
Coffee, roasted	0	0	3	„
Stearine, for match-making	0	0	0¾	„
Paraffin wax..	0	0	0¾	„
Matches—				
Wax, "plaid vestas" in cardboard boxes containing under 100 matches	0	1	0	the gross of boxes.
Wax, "pocket vestas" in tin or other boxes containing under 100 matches	0	1	4	„
Wax, "sportsman's," "ovals," and "No. 4 tin vestas" in boxes containing not more than 200 matches	0	4	6	„
Wax, other kinds, for every 100 matches or fraction thereof contained in one box	0	2	3	„
Patent medicines	15	0	0	per cent.
Proprietary medicines and medicaments—				
1. Bearing the name of the proprietor on label or package	15	0	0	„
2. Bearing a prefixed name in the possessive case				
3. Not otherwise enumerated, prepared by any occult secret or art				
Sarsaparilla	15	0	0	„
Drugs and druggists' sundries and apothecaries' wares not otherwise enumerated	15	0	0	„
Chemicals not otherwise enumerated, including photographic chemicals and glacial acetic acid (B.P. standard)	15	0	0	„
Tinctures and medicinal spirits of any recognised pharmacopœia containing 50 per cent. proof spirit or less	15	0	0	„
Steam-engines and parts thereof, including the boiler or boilers therefor, imported specially for mining or gold-saving purposes and processes, or for dairying purposes	5		0	„

[To face page 70.]

[OVER

24. Milk, preserved, 25 per cent. *ad valorem.*
25. Mustard, 2d. the lb.
26. Nuts of all kinds, except cocoanuts, 2d. the lb.
27. Oysters, preserved, 2d. the lb. or packages of that reputed weight, and so in proportion for packages of greater or less reputed weight.
28. Pearl barley, 1s. the cwt.
29. Peas, split, 2s. the cwt.
30. Pickles, 3s. the imperial gallon.
31. Provisions, n.o.e., 20 per cent., *ad valorem.*
32. Rice and rice-flour, 6s. the cwt.
33. Rice, undressed, and dressed in bond, 4s. the cwt.
34. Salt, except rock-salt, 10s. the ton.
35. Sardines, including the oil, 2d. the lb.
36. Sauces, 4s. the imperial gallon.
37. Spices, including pepper and pimento, unground, 2d. the lb.
38. Spices, including pepper and pimento, ground, 4d. the lb.
39. Sugar, ½d. the lb.
40. Treacle and molasses, ½d. the lb.
41. Vegetables, fresh, dried, or preserved, 20 per cent., *ad valorem.*
42. Vinegar, table, not exceeding 6·5 per cent. of acidity,* 6d. the gallon.

CLASS II.—TOBACCO.

43. Cigarettes, not exceeding in weight 2½lb. per 1,000, 17s. 6d. the 1,000. And for all weight in excess of 2½lb. per 1,000, 6d. the oz.
44. Cigars, 7s. the lb.
45. Snuff, 7s. the lb.
46. Tobacco, 3s. 6d. the lb.
47. Tobacco unmanufactured, entered to be manufactured in the colony in any licensed tobacco manufactory, for manufacturing purposes only, into tobacco, cigars, cigarettes, or snuff, 2s. the lb.

CLASS III.—ALCOHOLIC BEVERAGES, AND MATERIALS FOR MAKING SAME.

48. Ale, beer of all sorts, porter, cider, and perry, the gallon, or for six reputed quart bottles, or 12 reputed pint bottles, 2s. the gallon.
49. Cordials, bitters, and liqueurs, 16s. the liquid gallon.
50. Hops, 6d. the lb.
51. Malt, 2s. the bushel.
52. Rice malt, 1d. the lb.
53. Solid wort, 6d. the lb.
54. Spirits and strong waters, the strength of which can be ascertained by Sykes's hydrometer, 16s. the proof gallon.

    (No allowance beyond 16·5 under proof shall be made for spirits or strong waters of a less hydrometer strength than 16·5 under proof.)
55. Spirits and strong waters, sweetened or mixed, when not exceeding the strength of proof, 16s. the liquid gallon.
56. Spirits and strong waters in cases shall be charged as follows, namely:—

    Two gallons and under, as two gallons; over two gallons and not exceeding three, as three gallons; over three gallons and not exceeding four, as four gallons; and so on for any greater quantity contained in any case.
57. Spirits or strong waters, mixed with ingredients in any proportion exceeding 33 per cent. of proof spirit, and although thereby coming under any other designation, excepting patent or proprietary medicines, or tinctures and medicinal spirits otherwise enumerated, 16s. the liquid gallon.
58. Wine, Australian, containing not more than 35 per cent. of proof spirit verified by Sykes's hydrometer, the gallon, or for six reputed quart bottles, or twelve reputed pint bottles, 5s. the gallon.

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* Vinegar exceeding 6·5 per cent. of acidity to be treated as acetic acid.

59. Wine, other than sparkling and Australian, containing less than 40 per cent. of proof spirit verified by Sykes's hydrometer, the gallon, or for six reputed quart bottles, or twelve reputed pint bottles, 6s. the gallon.
60. Wine, sparkling, 9s. the gallon.

Class IV.—Non-Alcoholic Beverages, and Materials for Making Same.

61. Aërated and mineral waters and effervescing beverages, 20 per cent. *ad valorem.*
62. Chicory, 3d. the lb.
63. Chocolate, 3d. the lb.
64. Cocoa, 3d. the lb.
65. Coffee, essence of, 20 per cent. *ad valorem.*
66. Coffee, raw, 2d. the lb.
67. Coffee roasted, 5d. the lb.
68. Syrups; lime- or lemon-juice sweetened; raspberry vinegar, 25 per cent. *ad valorem.*
69. Tea, 4d. the lb.

Class V.—Drugs, Medicines, Chemicals, and Druggists' Sundries.

70. Acid, acetic, n.o.e., containing not more than 30 per cent. of acidity, 1½d. the lb. For every 10 per cent. of acidity or fraction thereof additional, ½d. the lb.
71. Acid, tartaric, 1d. the lb.
72. Baking-powder, yeast preparations, and other ferments, 20 per cent. *ad valorem.*
73. Chemicals n.o.e., including photographic chemicals and glacial acetic acid, 20 per cent. *ad valorem.*
74. Cream of tartar, 1d. the lb.
75. Drugs and druggists' sundries and apothecaries' wares, n.o.e., 20 per cent. *ad valorem.*
76. Essences, flavouring, spirituous, 15 per cent. *ad valorem* until 1st February, 1896, and thereafter 16s. the liquid gallon.
77. Essences, flavouring, n.o.e., 15 per cent. *ad valorem.*
78. Eucalyptus oil, in bulk or bottle, 20 per. cent. *ad valorem.*
79. Glycerine, refined, 20 per cent. *ad valorem.*
80. Opium, 40s. the lb.
81. Patent medicines, 40 per cent. *ad valorem.*
82. Proprietary medicines, or medicaments, (1) bearing the name of the proprietor on label or package; (2) bearing a prefixed name in the possessive case; (3) n.o.e., prepared by any occult secret or art, 40 per cent. *ad valorem.*
83. Saccharine, except in the form of tabloids or tablets, 1s. 6d. the ounce.
84. Sarsaparilla, 25 per cent. *ad valorem.*
85. Soda, carbonate and bicarbonate, 1s. the cwt.
86. Soda, crystals, 2s. the cwt.
87. Tinctures and medicinal spirits of any recognised pharmacopœia, containing more than 50 per cent. of proof spirit, 1s. the lb.
88. Tinctures and medicinal spirits of any recognised pharmacopœia, containing less than 50 per cent. of proof spirit, 6d. the lb.

Class VI.—Clothing and Textile Goods.

89. Apparel and ready-made clothing, and all articles n.o.e. made up wholly or in part from textile or other piece-goods, 25 per cent. *ad valorem.*
90. Apparel made by British or foreign tailors, dress-, mantle-, or jacket-makers, to the order of residents in the colony, and intended for the individual use of such residents, whether imported by the residents themselves or through an importing firm, 40 per cent. *ad valorem.*
91. Blankets, 20 per cent. *ad valorem.*
92. Collars and cuffs, of paper or other material, 25 per cent. *ad valorem.*
93. Cotton counterpanes, 20 per cent. *ad valorem.*
94. Cotton piece-goods, to include turkey twills, dress prints (hard-spun and plain-woven), where the invoice value does not exceed 4d. the yard; and cotton piece goods n.o.e., 10 per cent. *ad valorem.*

95. Cotton piece goods—namely, tapestry; cretonnes; chintz art crêpe, and serges; velveteens, velvets, and plushes, all kinds; damasks, moquette; sateens, linenettes; crepons; crimps; zephyrs; ginghams; turkey twills; prints; printed cottons; piqués; vestings; quiltings and marcellas; muslins of all kinds; nets; window-nets; hollands, curtains, and blinds; diapers; ticks, including coloured Belgian; towellings; laces: 20 per cent. *ad valorem.*
96. Drapery n.o.e., 20 per cent. *ad valorem.*
97. Feathers, ornamental (including ostrich), and artificial flowers, 25 per cent. *ad valorem.*
98. Forfar, dowlas, and flax sheeting, n.o.e., 20 per cent. *ad valorem.*
99. Furs, 25 per cent. *ad valorem.*
100. Haberdashery n.o.e., 20 per cent. *ad valorem.*
101. Hats of all kinds, including straw hats, also caps, 25 per cent *ad valorem.*
102. Hosiery n.o.e., 20 per cent. *ad valorem.*
103. Lace, and laces, n.o.e., 25 per cent. *ad valorem.*
104. Millinery of all kinds, including trimmed hats, caps, and bonnets, 25 per cent. *ad valorem.*
105. Ribbons and crape, all kinds, 25 per cent. *ad valorem.*
106. Rugs, woollen, cotton, opossum, or other, 20 per cent. *ad valorem.*
107. Shawls, 20 per cent. *ad valorem.*
108. Silks, satins, velvets, plushes, n.o.e., composed of silk mixed with any other material, in the piece, 25 per cent. *ad valorem.*
109. Textile piece-goods other than cotton or silk, 20 per cent. *ad valorem.*
110. Umbrellas, parasols, and sunshades, 20 per cent. *ad valorem.*
111. Yarns n.o.e., 20 per cent. *ad valorem.*

CLASS VII.—LEATHER AND MANUFACTURES OF LEATHER.

112. Boots, shoes, and slippers, n.o.e; goloshes, clogs, pattens, vamps, uppers, and laces, 22½ per cent. *ad valorem.*
113. Heel-plates, and toe-stiffeners and plates, 22½ per cent. *ad valorem.*
114. Leather—
    - Leather belting and belt-leather, harness, bridle, legging, bag, kip (other than East India), 4d. the lb.
    - Buff and split, including satin hides and tweeds, 3d. the lb.
    - Cordovan, levanted leather, roans, sheepskins, morocco n.o.e., basils, 3d. the lb.
    - Sole-leather, 2d. the lb.
    - East India kip, Persians, lambskins and goatskins (dressed other than morocco), kangaroo and wallabi skins (dressed), tan and coloured calf, 2d. the lb.
    - Leather n.o.e., 1d. the lb.
115. Leather board or compo, 4d. the lb.
116. Leather bags and leather-cloth bags, n.o.e., 20 per cent. *ad valorem.*
117. Leather, chamois, 20 per cent. *ad valorem.*
118. Leather cut into shapes, 22½ per cent. *ad valorem.*
119. Leather leggings, 22½ per cent. *ad valorem.*
120. Leather manufactures n.o.e., 20 per cent. *ad valorem.*
121. Portmanteaux; trunks; travelling-bags and brief-bags of leather or leather-cloth, 10 in. in length and upwards, and carpet-bags, 25 per cent. *ad valorem.*
122. Saddlery and harness, whips and whip-thongs, 20 per cent. *ad valorem.*

CLASS VIII.—FURNITURE AND HOUSEHOLD FURNISHINGS.

123. Basket- and wicker-ware n.o.e., not being furniture, 20 per cent. *ad valorem.*
124. Carpets and druggets; floorcloth; mats and matting, 20 per cent. *ad valorem.*
125. Desks, 20 per cent. *ad valorem.*
126. Furniture and cabinetware, n.o.e., and other than iron, 25 per cent. *ad valorem.*
127. Furniture-, knife-, and plate-powder and polish, 20 per cent. *ad valorem.*
128. Mantelpieces, other than stone, 20 per cent. *ad valorem.*
129. Upholstery n.o.e., 25 per cent. *ad valorem.*

171. Paper, wrapping, other kinds, including brown, cartridge, and sugar papers, 5s. the cwt.
172. Printed matter relating to patent or proprietary medicines; trade catalogues, price-lists, and fashion-plates of the goods of firms or persons in the colony, 25 per cent. *ad valorem.*
173. Stationery and writing paper n.o.e., 20 per cent. *ad valorem.*
174. Stationery, manufactured—viz., account-books; manuscript books; bill-head, invoice, and statement forms; printed or ruled paper; counter-books; cheque- and draft forms; tags; labels; blotting-pads; sketch-books; book covers; copying letter-books; manifold writers; albums (other than for photographs); diaries; birthday-books; plain or faint-lined ruled books; printed window-tickets; printed, lithographed, or embossed stationery; and Christmas, New Year, birthday, and Easter cards and booklets: 25 per cent. *ad valorem.*
175. Stereotypes and matrices, 25 per cent. *ad valorem.*

CLASS XII.—MANUFACTURES OF METAL.

176. Bicycles, tricycles, and the like vehicles; also finished or partly finished or machined parts of same, n.o.e., including weldless steel tubing cut to short lengths, 20 per cent. *ad valorem.*
177. Boilers, land and marine, 20 per cent. *ad valorem.*
178. Brass cocks, valves, unions, lubricators, and whistles, 20 per cent. *ad valorem.*
179. Brass manufactures n.o.e, 20 per cent. *ad valorem.*
180. Cartridges (shot), 10- to 24-bore, 1s. 6d. the 100.
181. Cartridge-cases, 9d. the 100.
182. Cartridges, n.o.e., 20 per cent. *ad valorem.*
183. Cash-registering machines, 10 per cent. *ad valorem.*
184. Coffin-furniture, 20 per cent. *ad valorem.*
185. Composition-piping, 3s. 6d. the cwt.
186. Copper manufactures n.o.e., 20 per cent. *ad valorem.*
187. Copying-presses, 20 per cent. *ad valorem.*
188. Crab-winches, cranes n.o.e., capstans, and windlasses, 20 per cent. *ad valorem.*
189. Cutlery, 20 per cent. *ad valorem.*
190. Firearms, all kinds, 20 per cent. *ad valorem.*
191. Galvanised-iron manufactures n.o.e., 25 per cent. *ad valorem.*
192. Gasometers, and other apparatus for producing gas; also gas-meters, 10 per cent. *ad valorem.*
193. Gaspipes, iron, 5 per cent. *ad valorem.*
194. Hardware, ironmongery, and holloware, 20 per cent. *ad valorem.*
195. Iron bridges, and iron material, n.o.e., for the construction of bridges, wharves, jetties, or patent slips, 20 per cent. *ad valorem.*
196. Iron columns for buildings, and other structural ironwork, 20 per cent. *ad valorem.*
197. Iron doors for safes and vaults, 20 per cent. *ad valorem.*
198. Iron, galvanised corrugated sheets, screws, and nails, 2s. the cwt.
199. Iron galvanised tiles, ridging, guttering, and spouting, 20 per cent. *ad valorem.*
200. Iron gates and gate-posts, staples, standards, straining posts and apparatus, 20 per cent. *ad valorem.*
201. Iron nails, 2s. the cwt.
202. Iron pipes, and fittings for same, including main-cocks, 5 per cent. *ad valorem.*
203. Iron, plain galvanised sheet and hoop, 1s. 6d. the cwt.
204. Iron tanks, exceeding 200 gallons and not exceeding 400 gallons, 10s. each.
205. Iron tanks, of and under 200 gallons, 5s. each.
206. Iron-work and wire-work, 20 per cent. *ad valorem.*
207. Japanned and lacquered metal ware, 25 per cent. *ad valorem.*

208. Lawn-mowers, 20 per cent. *ad valorem.*
209. Lead, in sheets, 1s. 6d. the cwt.
210. Lead piping, 3s. 6d. the cwt.
211. Machinery, n.o.e., 20 per cent. *ad valorem.*
212. Machinery, electric, and appliances, 10 per cent. *ad valorem.*
213. All machinery for agricultural purposes, including chaff-cutters, corn-crushers, corn-shellers, also articles used in manufacturing the same—namely, chaff-cutting knives, tilt-rakes, fittings for threshing-mills, forgings for ploughs; but excluding reapers and binders, 5 per cent. *ad valorem.*
214. Machinery for dairying purposes (excluding separators and coolers), 5 per cent. *ad valorem.*
215. Machinery for flour-mills, woollen-mills, paper-mills, rope- and twine-making, dredging, saw-milling, planing, and wood-working (including lathes), oil-refining, boring, and also machinery for refrigerating or preserving meat, leather-splitting machines, and band-knives for same, 5 per cent. *ad valorem.*
216. Machinery for stamping and blocking tin, 5 per cent. *ad valorem.*
217. Machinery of every description for mining purposes, including machine pumps, but excluding machinery for gold-saving purposes and processes, 5 per cent. *ad valorem.*
218. Manufactures, n.o.e., of metal, or of metal in combination with any other material, 20 per cent. *ad valorem.*
219. Nails n.o.e., 3s. the cwt.
220. Portable engines on four or any greater number of wheels, with boilers of locomotive type; also traction-engines, 5 per cent. *ad valorem.*
221. Printing machines and presses, 5 per cent. *ad valorem.*
222. Pumps and other apparatus for raising water n.o.e., 20 per cent. *ad valorem.*
223. Railway and tramway plant and materials n.o.e., 20 per cent. *ad valorem.*
224. Sad-irons, 20 per cent. *ad valorem.*
225. Shot, 10s. the cwt.
226. Soda-water machines; also machines for aërating liquids, 5 per cent. *ad valorem.*
227. Steam-engines and parts of steam-engines n.o.e., 20 per cent. *ad valorem.*
228. Steam-engines and parts thereof (including the boiler or boilers therefor), imported specially for mining and dairying purposes, 5 per cent. *ad valorem.*
229. Tinware, and tinsmiths' furniture, n.o.e., 25 per cent. *ad valorem.*
230. Waterworks pipes, iron, 5 per cent. *ad valorem.*
231. Weighbridges and weighing-machines, 20 per cent. *ad valorem.*
232. Wire mattresses and webbing, 20 per cent. *ad valorem.*
233. Zinc tiles, ridging, guttering, piping, 20 per cent. *ad valorem.*
234. Zinc manufactures n.o.e., 25 per cent. *ad valorem.*

CLASS XIII.—TIMBER AND ARTICLES MADE FROM TIMBER.

235. Bellows, other than forge, 20 per cent. *ad valorem.*
236. Blocks, wooden tackle, 20 per cent. *ad valorem.*
237. Buckets and tubs, of wood, 20 per cent. *ad valorem.*
238. Carriages, carts, drays, wagons and perambulators, and wheels for the same, 20 per cent. *ad valorem.*
239. Carriage shafts, spokes, and felloes, dressed: bent carriage timber n.o.e., 20 per cent. *ad valorem.*
240. Doors, glazed with ornamental glass, 4s. each.
241. Doors, plain, 2s. each.
242. Sashes, glazed with ornamental glass, 4s. the pair.
243. Sashes, plain, 2s. the pair.
244. Timber, palings, 2s. the 100.
245. Timber, posts, 8s. the 100.
246. Timber, rails, 4s. the 100.

EXEMPTIONS.

Names of Articles.

Kerosene
Rice, dressed or undressed
Rice, manufactured into starch in bond
Salt
Coffee, raw
Confectioners' moulding-starch
Liquid chlorine
Cyanide of sodium
Picric acid
Prussiate of potash
Hyposulphite of sodium
All machinery for agricultural purposes, including chaff-cutters, corn-crushers, corn-shellers; also articles used in manufacturing the same—viz., chaff-cutting knives, tilt-rakes, fittings for threshing-mills, forgings for ploughs
All agricultural implements
Machinery for dairying purposes
Machinery of every description for mining purposes, including machine pumps, but not including machinery for dredging

Names of Articles.

Machinery exclusively for the purpose of the manufacture of beetroot sugar
Portable engines on four or any greater number of wheels, with boiler of locomotive type; also traction engines
Engine governors
All bolts and nuts, blank or screwed nuts, black or finished nuts
Blowers
Welded and flanged boiler-furnaces, plain or corrugated
Chain pulleys, and chains for same
Engineers', boilermakers', brass-finishers', smiths', and all metal and wood-workers' machine and hand tools
Chamfering, crozing and howelling machine for cask-making
Steel rams, black or finished, for hydraulic cranes or jiggers
Bags made of New Zealand tow or flax

For the purposes of this Schedule the expression "machinery" shall be deemed not to include steam-engines or parts of steam-engines, or steam-boilers (land or marine).

THE CUSTOMS TARIFF OF NEW ZEALAND,

Under the Customs and Excise Duties Acts, 1888 and 1895, and "The Tobacco Excise Duties Act, 1896."

TABLE OF DUTIES.

THE headings of the respective classes in this Table and in the Table of Exemptions are used solely for convenience of classification, and shall not in any way affect the articles specified therein, or be construed to indicate the material of which any such article is made.

The word "iron" includes steel, or steel and iron combined.

Neither steam-engines, nor parts of steam-engines, nor steam-boilers (land or marine) are included in the expression "machines" or "machinery" in either this Table or the Table of Exemptions.

The abbreviaton "n.o.e." means not otherwise enumerated.

In computing "ad valorem" duties the *invoice* value of the goods is increased by 10 per cent.

CLASS I.—FOODS AND ARTICLES FOR HUMAN CONSUMPTION.

Names of Articles and Rates of Duty.

1. Almonds, in the shell, 2d. the lb.
2. Almonds, shelled, n.o.e, 3d. the lb.
3. Bacon and hams, 2d. the lb.
4. Biscuits, ships', plain and unsweetened, 3s. the cwt.
5. Biscuits, other kinds, 2d. the lb.
6. Boiled sugars, comfits, lozenges, Scotch mixtures, and sugar-candy, 2d. the lb., including internal packages.
7. Candied peel and drained peel, 3d. the lb.
8. Capers, caraway seeds, catsup, cayenne pepper, chillies, chutney, curry-powder and -paste, fish-paste, gelatine, isinglass, liquorice, olives, 20 per cent. *ad valorem.*
9. Chocolate confectionery, and all preparations of chocolate or cocoa—
   In plain trade packages, 3d. the lb.
   In fancy packages, or in small packages for retail sale, 20 per cent. *ad valorem.*
10. Confectionery, n.o.e., 2d. the lb., including internal packages.
11. Fish, dried, pickled, or salted, n.o.e., 10s. the cwt.
12. Fish, potted and preserved, 2d. the lb., or packages of that reputed weight, and so in proportion for packages of greater or less reputed weight.
13. Fruit, fresh, viz.:—
    Apples, pears, plums, cherries, peaches, nectarines, medlars, apricots, quinces, tomatoes, 1d. the lb.
    (No duty exceeding ½d. the lb. to be levied on apples and pears from 14th July to 31st December.)
    Currants, raspberries, gooseberries, blackberries, and strawberries, ½d. the lb
    Lemons, ½d. the lb.
14. Fruits, dried, 2d. the lb.
15. Fruits, preserved in juice or syrup, 25 per cent. *ad valorem.*
16. Fruit-pulp, and partially preserved fruit, n.o.e., 1½d. the lb.
17. Fruits preserved by sulphurous acid, 1d. the lb.
18. Glucose, 1d. the lb.
19. Honey, 2d. the lb.
20. Jams, jellies, marmalade, and preserves, 2d. the lb. or packages of that reputed weight, and so in proportion for packages of greater or less reputed weight
21. Jellies concentrated in tablets or powder, 4d. the lb.
22. Maizena and cornflour, ½d. the lb.
23. Meats, potted or preserved, 20 per cent. *ad valorem.*

24. Milk, preserved, 25 per cent. *ad valorem.*
25. Mustard, 2d. the lb.
26. Nuts of all kinds, except cocoanuts, 2d. the lb.
27. Oysters, preserved, 2d. the lb. or packages of that reputed weight, and so in proportion for packages of greater or less reputed weight.
28. Pearl barley, 1s. the cwt.
29. Peas, split, 2s. the cwt.
30. Pickles, 3s. the imperial gallon.
31. Provisions, n.o.e., 20 per cent., *ad valorem.*
32. Rice and rice-flour, 6s. the cwt.
33. Rice, undressed, and dressed in bond, 4s. the cwt.
34. Salt, except rock-salt, 10s. the ton.
35. Sardines, including the oil, 2d. the lb.
36. Sauces, 4s. the imperial gallon.
37. Spices, including pepper and pimento, unground, 2d. the lb.
38. Spices, including pepper and pimento, ground, 4d. the lb.
39. Sugar, ½d. the lb.
40. Treacle and molasses, ½d. the lb.
41. Vegetables, fresh, dried, or preserved, 20 per cent., *ad valorem.*
42. Vinegar, table, not exceeding 6·5 per cent. of acidity,[*] 6d. the gallon.

Class II.—Tobacco.

43. Cigarettes, not exceeding in weight 2½lb. per 1,000, 17s. 6d. the 1,000. And for all weight in excess of 2½lb. per 1,000, 6d. the oz.
44. Cigars, 7s. the lb.
45. Snuff, 7s. the lb.
46. Tobacco, 3s. 6d. the lb.
47. Tobacco unmanufactured, entered to be manufactured in the colony in any licensed tobacco manufactory, for manufacturing purposes only, into tobacco, cigars, cigarettes, or snuff, 2s. the lb.

Class III.—Alcoholic Beverages, and Materials for Making Same.

48. Ale, beer of all sorts, porter, cider, and perry, the gallon, or for six reputed quart bottles, or 12 reputed pint bottles, 2s. the gallon.
49. Cordials, bitters, and liqueurs, 16s. the liquid gallon.
50. Hops, 6d. the lb.
51. Malt, 2s. the bushel.
52. Rice malt, 1d. the lb.
53. Solid wort, 6d. the lb.
54. Spirits and strong waters, the strength of which can be ascertained by Sykes's hydrometer, 16s. the proof gallon.

    (No allowance beyond 16·5 under proof shall be made for spirits or strong waters of a less hydrometer strength than 16·5 under proof.)
55. Spirits and strong waters, sweetened or mixed, when not exceeding the strength of proof, 16s. the liquid gallon.
56. Spirits and strong waters in cases shall be charged as follows, namely:—

    Two gallons and under, as two gallons; over two gallons and not exceeding three, as three gallons; over three gallons and not exceeding four, as four gallons; and so on for any greater quantity contained in any case.
57. Spirits or strong waters, mixed with ingredients in any proportion exceeding 33 per cent. of proof spirit, and although thereby coming under any other designation, excepting patent or proprietary medicines, or tinctures and medicinal spirits otherwise enumerated, 16s. the liquid gallon.
58. Wine, Australian, containing not more than 35 per cent. of proof spirit verified by Sykes's hydrometer, the gallon, or for six reputed quart bottles, or twelve reputed pint bottles, 5s. the gallon.

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[*] Vinegar exceeding 6·5 per cent. of acidity to be treated as acetic acid.

59. Wine, other than sparkling and Australian, containing less than 40 per cent. of proof spirit verified by Sykes's hydrometer, the gallon, or for six reputed quart bottles, or twelve reputed pint bottles, 6s. the gallon.
60. Wine, sparkling, 9s. the gallon.

Class IV.—Non-Alcoholic Beverages, and Materials for Making Same.

61. Aërated and mineral waters and effervescing beverages, 20 per cent. *ad valorem.*
62. Chicory, 3d. the lb.
63. Chocolate, 3d. the lb.
64. Cocoa, 3d. the lb.
65. Coffee, essence of, 20 per cent. *ad valorem.*
66. Coffee, raw, 2d. the lb.
67. Coffee roasted, 5d. the lb.
68. Syrups; lime- or lemon-juice sweetened; raspberry vinegar, 25 per cent. *ad valorem.*
69. Tea, 4d. the lb.

Class V.—Drugs, Medicines, Chemicals, and Druggists' Sundries.

70. Acid, acetic, n.o.e., containing not more than 30 per cent. of acidity, 1½d. the lb. For every 10 per cent. of acidity or fraction thereof additional, ½d. the lb.
71. Acid, tartaric, 1d. the lb.
72. Baking-powder, yeast preparations, and other ferments, 20 per cent. *ad valorem.*
73. Chemicals n.o.e., including photographic chemicals and glacial acetic acid, 20 per cent. *ad valorem.*
74. Cream of tartar, 1d. the lb.
75. Drugs and druggists' sundries and apothecaries' wares, n.o.e., 20 per cent. *ad valorem.*
76. Essences, flavouring, spirituous, 15 per cent. *ad valorem* until 1st February, 1896, and thereafter 16s. the liquid gallon.
77. Essences, flavouring, n.o.e., 15 per cent. *ad valorem.*
78. Eucalyptus oil, in bulk or bottle, 20 per. cent. *ad valorem.*
79. Glycerine, refined, 20 per cent. *ad valorem.*
80. Opium, 40s. the lb.
81. Patent medicines, 40 per cent. *ad valorem.*
82. Proprietary medicines, or medicaments, (1) bearing the name of the proprietor on label or package; (2) bearing a prefixed name in the possessive case; (3) n.o.e., prepared by any occult secret or art, 40 per cent. *ad valorem.*
83. Saccharine, except in the form of tabloids or tablets, 1s. 6d. the ounce.
84. Sarsaparilla, 25 per cent. *ad valorem.*
85. Soda, carbonate and bicarbonate, 1s. the cwt.
86. Soda, crystals, 2s. the cwt.
87. Tinctures and medicinal spirits of any recognised pharmacopœia, containing more than 50 per cent. of proof spirit, 1s. the lb.
88. Tinctures and medicinal spirits of any recognised pharmacopœia, containing less than 50 per cent. of proof spirit, 6d. the lb.

Class VI.—Clothing and Textile Goods.

89. Apparel and ready-made clothing, and all articles n.o.e. made up wholly or in part from textile or other piece-goods, 25 per cent. *ad valorem.*
90. Apparel made by British or foreign tailors, dress-, mantle-, or jacket-makers, to the order of residents in the colony, and intended for the individual use of such residents, whether imported by the residents themselves or through an importing firm, 40 per cent. *ad valorem.*
91. Blankets, 20 per cent. *ad valorem.*
92. Collars and cuffs, of paper or other material, 25 per cent. *ad valorem.*
93. Cotton counterpanes, 20 per cent. *ad valorem.*
94. Cotton piece-goods, to include turkey twills, dress prints (hard-spun and plain-woven), where the invoice value does not exceed 4d. the yard; and cotton piece goods n.o.e., 10 per cent. *ad valorem.*

95. Cotton piece goods—namely, tapestry; cretonnes; chintz art crêpe, and serges; velveteens, velvets, and plushes, all kinds; damasks, moquette; sateens, linenettes; crepons; crimps; zephyrs; ginghams; turkey twills; prints; printed cottons; piqués; vestings; quiltings and marcellas; muslins of all kinds; nets; window-nets; hollands, curtains, and blinds; diapers; ticks, including coloured Belgian; towellings; laces: 20 per cent. *ad valorem.*
96. Drapery n.o.e., 20 per cent. *ad valorem.*
97. Feathers, ornamental (including ostrich), and artificial flowers, 25 per cent. *ad valorem.*
98. Forfar, dowlas, and flax sheeting, n.o.e., 20 per cent. *ad valorem.*
99. Furs, 25 per cent. *ad valorem.*
100. Haberdashery n.o.e., 20 per cent. *ad valorem.*
101. Hats of all kinds, including straw hats, also caps, 25 per cent *ad valorem.*
102. Hosiery n.o.e., 20 per cent. *ad valorem.*
103. Lace, and laces, n.o.e., 25 per cent. *ad valorem.*
104. Millinery of all kinds, including trimmed hats, caps, and bonnets, 25 per cent. *ad valorem.*
105. Ribbons and crape, all kinds, 25 per cent. *ad valorem.*
106. Rugs, woollen, cotton, opossum, or other, 20 per cent. *ad valorem.*
107. Shawls, 20 per cent. *ad valorem.*
108. Silks, satins, velvets, plushes, n.o.e., composed of silk mixed with any other material, in the piece, 25 per cent. *ad valorem.*
109. Textile piece-goods other than cotton or silk, 20 per cent. *ad valorem.*
110. Umbrellas, parasols, and sunshades, 20 per cent. *ad valorem.*
111. Yarns n.o.e., 20 per cent. *ad valorem.*

CLASS VII.—LEATHER AND MANUFACTURES OF LEATHER.

112. Boots, shoes, and slippers, n.o.e; goloshes, clogs, pattens, vamps, uppers, and laces, 22½ per cent. *ad valorem.*
113. Heel-plates, and toe-stiffeners and plates, 22½ per cent. *ad valorem.*
114. Leather—
    Leather belting and belt-leather, harness, bridle, legging, bag, kip (other than East India), 4d. the lb.
    Buff and split, including satin hides and tweeds, 3d. the lb.
    Cordovan, levanted leather, roans, sheepskins, morocco n.o.e., basils, 3d. the lb.
    Sole-leather, 2d. the lb.
    East India kip, Persians, lambskins and goatskins (dressed other than morocco), kangaroo and wallabi skins (dressed), tan and coloured calf, 2d. the lb.
    Leather n.o.e., 1d. the lb.
115. Leather board or compo, 4d. the lb.
116. Leather bags and leather-cloth bags, n.o.e., 20 per cent. *ad valorem.*
117. Leather, chamois, 20 per cent. *ad valorem.*
118. Leather cut into shapes, 22½ per cent. *ad valorem.*
119. Leather leggings, 22½ per cent. *ad valorem.*
120. Leather manufactures n.o.e., 20 per cent. *ad valorem.*
121. Portmanteaux; trunks; travelling-bags and brief-bags of leather or leather-cloth, 10 in. in length and upwards, and carpet-bags, 25 per cent. *ad valorem.*
122. Saddlery and harness, whips and whip-thongs, 20 per cent. *ad valorem.*

CLASS VIII.—FURNITURE AND HOUSEHOLD FURNISHINGS.

123. Basket- and wicker-ware n.o.e., not being furniture, 20 per cent. *ad valorem.*
124. Carpets and druggets; floorcloth; mats and matting, 20 per cent. *ad valorem.*
125. Desks, 20 per cent. *ad valorem.*
126. Furniture and cabinetware, n.o.e., and other than iron, 25 per cent. *ad valorem.*
127. Furniture-, knife-, and plate-powder and polish, 20 per cent. *ad valorem.*
128. Mantelpieces, other than stone, 20 per cent. *ad valorem.*
129. Upholstery n.o.e., 25 per cent. *ad valorem.*

Class IX.—China, Glass, and Earthen Goods.

130. Bricks, known as firebricks, 20 per cent. *ad valorem.*
131. China, porcelain, and parianware, 20 per cent. *ad valorem.*
132. Drainage pipes and tiles, 20 per cent. *ad valorem.*
133. Earthen flooring and garden tiles, 20 per cent. *ad valorem.*
134. Earthenware, stoneware, and brownware, 20 per cent. *ad valorem.*
135. Filters, 20 per cent. *ad valorem.*
136. Fireclay, ground, and fireclay goods, 20 per cent. *ad valorem.*
137. Glass, crown, sheet, and common window, 2s. the 100 superficial feet.
138. Glassware; also plate-glass, and glass polished, coloured, and other kinds n.o.e.; globes and chimneys for lamps, 20 per cent. *ad valorem.*
139. Lamps, lanterns, and lamp-wick, 20 per cent. *ad valorem.*
140. Plate-glass, bevelled or silvered; mirrors and looking-glasses, framed or unframed, 25 per cent. *ad valorem.*

Class X.—Fancy Goods, Musical Instruments, etc.

141. Artificial flies, 25 per cent. *ad valorem.*
142. Cards, playing, 6d. per pack.
143. Clocks, 20 per cent. *ad valorem.*
144. Dressing-cases, 20 per cent. *ad valorem.*
145. Fancy goods, and toys, 20 per cent. *ad valorem.*
146. Fishing tackle, including artificially-baited hooks other than flies, 20 per cent. *ad valorem.*
147. Jewellery; plate, gold or silver; greenstone, cut or polished: 20 per cent. *ad valorem.*
148. Mouldings in the piece, for picture-frames, cornices, or ceilings, 15 per cent. *ad valorem.*
149. Musical instruments of all kinds n.o.e., 20 per cent. *ad valorem.*
150. Oil, perfumed, 25 per cent. *ad valorem.*
151. Papier-maché ware, 20 per cent. *ad valorem.*
152. Perfumery n.o.e., 25 per cent. *ad valorem.*
153. Perfumed spirits and Cologne-water; £1 1s. the liquid gallon until the 1st February, 1896, and thereafter £1 10s. the liquid gallon.
154. Photographic goods n.o.e., 20 per cent. *ad valorem.*
155. Pictures, paintings, drawings, engravings, and photographs, framed or unframed; picture- or photograph-frames and -mounts, 20 per cent. *ad valorem.*
156. Platedware, 20 per cent. *ad valorem.*
157. Statues, statuettes, casts, and bronzes, 20 per cent. *ad valorem.*
158. Tobacco-pipes and cases, cigar- and cigarette-holders and cases, cigarette-papers and -cases, 25 per cent. *ad valorem.*
159. Toilet preparations n.o.e., 25 per cent. *ad valorem.*
160. Watches, 20 per cent. *ad valorem.*
161. Walking-sticks, 20 per cent. *ad valorem.*

Class XI.—Paper Manufactures and Stationery.

162. Calendars and show-cards, all kinds, 25 per cent. *ad valorem.*
163. Cardboard boxes complete, or cardboard cut and shaped for boxes (including match-boxes), 25 per cent. *ad valorem.*
164. Directories of New Zealand, or of any part thereof; also covers for directories, 25 per cent. *ad valorem.*
165. Handbills, programmes, and circulars, playbills and printed posters, 20 per cent. *ad valorem.*
166. Ink, writing, 20 per cent. *ad valorem.*
167. Paper bags, coarse (including sugar-bags), 7s. 6d. the cwt.
168. Paper bags n.o.e., 25 per cent. *ad valorem.*
169. Paper-hangings, 15 per cent. *ad valorem.*
170. Paper, wrapping—viz., blue candle, glazed cap, glazed casings small hand, lumber hand, and tissue, 5s. the cwt.

171. Paper, wrapping, other kinds, including brown, cartridge, and sugar papers, 5s. the cwt.
172. Printed matter relating to patent or proprietary medicines; trade catalogues, price-lists, and fashion-plates of the goods of firms or persons in the colony, 25 per cent. *ad valorem.*
173. Stationery and writing paper n.o.e., 20 per cent. *ad valorem.*
174. Stationery, manufactured—viz., account-books; manuscript books; bill-head, invoice, and statement forms; printed or ruled paper; counter-books; cheque- and draft forms; tags; labels; blotting-pads; sketch-books; book covers; copying letter-books; manifold writers; albums (other than for photographs); diaries; birthday-books; plain or faint-lined ruled books; printed window-tickets; printed, lithographed, or embossed stationery; and Christmas, New Year, birthday, and Easter cards and booklets: 25 per cent. *ad valorem.*
175. Stereotypes and matrices, 25 per cent. *ad valorem.*

CLASS XII.—MANUFACTURES OF METAL.

176. Bicycles, tricycles, and the like vehicles; also finished or partly finished or machined parts of same, n.o.e., including weldless steel tubing cut to short lengths, 20 per cent. *ad valorem.*
177. Boilers, land and marine, 20 per cent. *ad valorem.*
178. Brass cocks, valves, unions, lubricators, and whistles, 20 per cent. *ad valorem.*
179. Brass manufactures n.o.e, 20 per cent. *ad valorem.*
180. Cartridges (shot), 10- to 24-bore, 1s. 6d. the 100.
181. Cartridge-cases, 9d. the 100.
182. Cartridges, n.o.e., 20 per cent. *ad valorem.*
183. Cash-registering machines, 10 per cent. *ad valorem.*
184. Coffin-furniture, 20 per cent. *ad valorem.*
185. Composition-piping, 3s. 6d. the cwt.
186. Copper manufactures n.o.e., 20 per cent. *ad valorem.*
187. Copying-presses, 20 per cent. *ad valorem.*
188. Crab-winches, cranes n.o.e., capstans, and windlasses, 20 per cent. *ad valorem.*
189. Cutlery, 20 per cent. *ad valorem.*
190. Firearms, all kinds, 20 per cent. *ad valorem.*
191. Galvanised-iron manufactures n.o.e., 25 per cent. *ad valorem.*
192. Gasometers, and other apparatus for producing gas; also gas-meters, 10 per cent. *ad valorem.*
193. Gaspipes, iron, 5 per cent. *ad valorem.*
194. Hardware, ironmongery, and holloware, 20 per cent. *ad valorem.*
195. Iron bridges, and iron material, n.o.e., for the construction of bridges, wharves, jetties, or patent slips, 20 per cent. *ad valorem.*
196. Iron columns for buildings, and other structural ironwork, 20 per cent. *ad valorem.*
197. Iron doors for safes and vaults, 20 per cent. *ad valorem.*
198. Iron, galvanised corrugated sheets, screws, and nails, 2s. the cwt.
199. Iron galvanised tiles, ridging, guttering, and spouting, 20 per cent. *ad valorem.*
200. Iron gates and gate-posts, staples, standards, straining posts and apparatus, 20 per cent. *ad valorem.*
201. Iron nails, 2s. the cwt.
202. Iron pipes, and fittings for same, including main-cocks, 5 per cent. *ad valorem.*
203. Iron, plain galvanised sheet and hoop, 1s. 6d. the cwt.
204. Iron tanks, exceeding 200 gallons and not exceeding 400 gallons, 10s. each.
205. Iron tanks, of and under 200 gallons, 5s. each.
206. Iron-work and wire-work, 20 per cent. *ad valorem.*
207. Japanned and lacquered metal ware, 25 per cent. *ad valorem.*

208. Lawn-mowers, 20 per cent. *ad valorem.*
209. Lead, in sheets, 1s. 6d. the cwt.
210. Lead piping, 3s. 6d. the cwt.
211. Machinery, n.o.e., 20 per cent. *ad valorem.*
212. Machinery, electric, and appliances, 10 per cent. *ad valorem.*
213. All machinery for agricultural purposes, including chaff-cutters, corn-crushers, corn-shellers, also articles used in manufacturing the same—namely, chaff-cutting knives, tilt-rakes, fittings for threshing-mills, forgings for ploughs; but excluding reapers and binders, 5 per cent. *ad valorem.*
*214. Machinery for dairying purposes (excluding separators and coolers), 5 per cent. *ad valorem.*
215. Machinery for flour-mills, woollen-mills, paper-mills, rope- and twine-making, dredging, saw-milling, planing, and wood-working (including lathes), oil-refining, boring, and also machinery for refrigerating or preserving meat, leather-splitting machines, and band-knives for same, 5 per cent. *ad valorem.*
216. Machinery for stamping and blocking tin, 5 per cent. *ad valorem.*
217. Machinery of every description for mining purposes, including machine pumps, but excluding machinery for gold-saving purposes and processes, 5 per cent. *ad valorem.*
218. Manufactures, n.o.e., of metal, or of metal in combination with any other material, 20 per cent. *ad valorem.*
219. Nails n.o.e., 3s. the cwt.
220. Portable engines on four or any greater number of wheels, with boilers of locomotive type; also traction-engines, 5 per cent. *ad valorem.*
221. Printing machines and presses, 5 per cent. *ad valorem.*
222. Pumps and other apparatus for raising water n.o.e., 20 per cent. *ad valorem.*
223. Railway and tramway plant and materials n.o.e., 20 per cent. *ad valorem.*
224. Sad-irons, 20 per cent. *ad valorem.*
225. Shot, 10s. the cwt.
226. Soda-water machines; also machines for aërating liquids, 5 per cent. *ad valorem.*
227. Steam-engines and parts of steam-engines n.o.e., 20 per cent. *ad valorem.*
228. Steam-engines and parts thereof (including the boiler or boilers therefor), imported specially for mining and dairying purposes, 5 per cent. *ad valorem.*
229. Tinware, and tinsmiths' furniture, n.o.e., 25 per cent. *ad valorem.*
230. Waterworks pipes, iron, 5 per cent. *ad valorem.*
231. Weighbridges and weighing-machines, 20 per cent. *ad valorem.*
232. Wire mattresses and webbing, 20 per cent. *ad valorem.*
233. Zinc tiles, ridging, guttering, piping, 20 per cent. *ad valorem.*
234. Zinc manufactures n.o.e., 25 per cent. *ad valorem.*

CLASS XIII.—TIMBER AND ARTICLES MADE FROM TIMBER.

235. Bellows, other than forge, 20 per cent. *ad valorem.*
236. Blocks, wooden tackle, 20 per cent. *ad valorem.*
237. Buckets and tubs, of wood, 20 per cent. *ad valorem.*
238. Carriages, carts, drays, wagons and perambulators, and wheels for the same, 20 per cent. *ad valorem.*
239. Carriage shafts, spokes, and felloes, dressed: bent carriage timber n.o.e., 20 per cent. *ad valorem.*
240. Doors, glazed with ornamental glass, 4s. each.
241. Doors, plain, 2s. each.
242. Sashes, glazed with ornamental glass, 4s. the pair.
243. Sashes, plain, 2s. the pair.
244. Timber, palings, 2s. the 100.
245. Timber, posts, 8s. the 100.
246. Timber, rails, 4s. the 100.

247. Timber, sawn, dressed, 4s. the 100 ft. superficial.
248. Timber, sawn, rough, 2s. the 100 ft. superficial.
249. Timber, shingles and laths, 2s. the 1,000.
250. Woodenware and turnery n.o.e., and veneers, 20 per cent. *ad valorem.*

CLASS XIV.—OILS, PAINTS, ETC.

251. Axle-grease and other solid lubricants, 20 per cent. *ad valorem.*
252. Harness oil and composition, and leather dressing, 20 per cent. *ad valorem.*
253. Naphtha, 6d. the gallon.
254. Oil, kerosene, 6d. the gallon.
255. Oil, linseed, 6d. the gallon.
256. Oil, mineral, including shale-waste or unrefined mineral-oil n.o.e., 6d. the gallon.
257. Oil, n.o.e., 6d. the gallon.
258. Oil, olive, in bulk, 6d. the gallon.
259. Oil vegetable, in bulk, n.o.e., 6d. the gallon.
260. Oil, vegetable or other, in bottle, 15 per cent. *ad valorem.*
261. Paints and colours ground in oil or turpentine, 2s. 6d. the cwt.
262. Paints and colours mixed ready for use, 5s. the cwt.
263. Putty, 2s. the cwt.
264. Stearine, 1½d. the lb.
265. Varnish, enamel paints, gold size, 2s. the gallon.
266. Whiting and chalk, 1s. the cwt.

CLASS XV.—AGRICULTURAL AND FARM PRODUCTS, ETC.

267. Animals, food for, of all kinds, n.o.e., 20 per cent. *ad valorem.*
268. Cattle (horned), 10s. each.
269. Chaff, £1 the ton.
270. Grain—namely, barley, 2s. the 100 lb.
271. Grain and pulse of every kind n.o.e., 9d. the 100 lb.
272. Grain and pulse of every kind, when ground or in any way manufactured, n.o.e., 1s. the 100 lb.
273. Horses, £1 each.
274. Linseed, £1 the ton.
275. Maize, 9d. the 100 lb.
276. Onions, £1 the ton.
277. Prepared calf-meal, £1 5s. the ton.

CLASS XVI.—MISCELLANEOUS.

278. Bags, flour, 20 per cent. *ad valorem.*
279. Bags, calico, forfar, hessian, and linen, 20 per cent. *ad valorem.*
280. Bagging and bags n.o.e., 15 per cent. *ad valorem.*
281. Blacking and boot-gloss, 20 per cent. *ad valorem.*
282. Blacklead, 20 per cent. *ad valorem.*
283. Blue, 2d. the lb.
284. Brooms, brushes, and brushware n.o.e., 25 per cent. *ad valorem.*
285. Brushes, hair, and combs; toilet, clothes, and hat brushes, 20 per cent. *ad valorem.*
286. Candles, 2d. the lb. or package of that reputed weight, and so in proportion for packages of greater or less reputed weight.
287. Cement, 2s. the barrel.
288. Cordage and rope n.o.e., 20 per cent. *ad valorem.*
289. Cork, cut, including bungs, 20 per cent. *ad valorem.*
290. Fireworks n.o.e., 20 per cent. *ad valorem.*
291. Flock, 10 per cent. *ad valorem.*
292. Glue and size, 1½d. the lb.

318. Disinfectants.
319. Drugs and chemicals—viz.: alum; sulphate of aluminium; sulphate of ammonia; anhydrous ammonia; aniline dyes; arsenic, bluestone, or sulphate of copper; borax; catechu; chloride of calcium; nitrate of silver; cochineal; creosote, crude or commercial; glycerine, crude; gum, arabic and tragacanth; gum benzoin; artificial gum arabic; gum damar; phosphorus; potash, caustic potash, and chlorate of potash; pearlash; cyanide of potassium; sal-ammoniac; saltpetre; acetate of soda, crude; soda-ash; caustic soda; nitrate of soda; silicate of soda, sulphate of soda; sulphide of sodium; strychnine; sulphur; chloride of zinc; iron-sulphates; gall-nuts; turmeric; saffron; nitrous-oxide gas; tree washes; insecticides; maltine; chlorodyne.
320. Essential oils, except eucalyptus; cod-liver oil; oil of rhodium.
321. Horse-drenches.
322. Medicinal barks, leaves, herbs, flowers, roots, and gums.
323. Scrub-exterminator.
324. Sheep-dip; sheep-drenches; sheep-licks.
325. Surgical and dental instruments and appliances.
326. Scientific and assay balances, retorts, flasks, and other appliances for chemical analysis and assay work.
327. Water-hardening chemicals for brewers' use.

CLASS VI.—CLOTHING AND TEXTILES.

328. Accoutrements for military purposes, excepting uniform clothing.
329. Brace-elastic and brace mountings.
330. Bunting, in the piece.
331. Butter- and cheese-cloth.
332. Buttons, tapes, wadding, pins, needles.
333. Calico, white and grey, also cotton sheetings, in the piece.
334. Corduroy, moleskin, and plain beaverskin, of cotton, in the piece.
335. Coloured cotton shirtings; flannelette shirtings.*
336. Forfar, dowlas, and flax sheeting, when cut up under supervision in sizes not exceeding 47 in. x 36 in. for making flour-bags, and not exceeding 54 in. for lining wool mats.
337. Fur-skins, green or sun-dried.
338. Gold or silver lace or braid for military clothing.
339. Hatmaker's materials—viz.: silk plush; felt hoods; shellac; galloons; calicoes; spale-boards for hat-boxes; leathers and linings; blocks; moulds; frames; ventilators; and tassels.
340. Hessians, plain or striped, and scrim.
341. Leather-cloth.
342. Minor articles (required in the making-up of apparel, boots, shoes, hats, caps, saddlery, umbrellas, parasols, and sunshades), enumerated in any order of the Commissioner, and published in the *Gazette*.
343. Sailcloth, canvas, and unbleached double-warped duck, in the piece.
344. Sewing cottons, silks, and threads; crotchet, darning, and knitting cottons; angola mendings not exceeding 45 yards, on cards.
345. Silk for flour-dressing.
346. Silk twist (shoemakers' and saddlers').
347. Staymakers' binding, eyelets, corset-fasteners, jean, ticks, lasting, sateen, and cotell.
348. Tailors' trimmings—viz.: plain-coloured imitation hair-cloth; canvas; plain Verona and plain diagonal, and such patterns of checked Italian cloth as may be approved of by the Commissioner of Customs; Italian cloth of cotton or wool; buckram; wadding and padding; silk, worsted, and cotton bindings and braids; stay-bindings; Russia braids; shoulder-pads; buckles; silesias; drab, slate, and brown jeans; pocketings; slate, black, and brown dyed unions and linens.

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* See note on next page.

349. Umbrella-makers' materials—viz.: reversible and levantine silk mixtures, gloria, and satin de chêne of not less than 44 in. in width; alpaca cloth, with border; zanella cloth, with border; also other piece-goods on such conditions as the Commissioner may approve; sticks, runners, notches, caps, ferrules, cups, ribs, stretchers, tips, and rings.
350. Union shirtings the invoice value of which does not exceed 6d. the yard.*
351. Waterproof material in the piece.

CLASS VII.—LEATHER, AND ARTICLES USED IN LEATHER MANUFACTURES.

352. Boot-elastic.
353. Bootmakers' linings, canvas, plain or coloured, bag and portmanteau linings, of such materials, qualities, and patterns as may be approved by the Commissioner.
354. Boots, shoes, and slippers—viz.; children's, Nos. 0 to 3.
355. Cork soles, and sock soles.
356. East India kip, crust or rough-tanned, but undressed.
357. Goatskins, crust or rough-tanned, but undressed.
358. Grindery, except heel- and toe-plates.
359. Hogskins.
360. Kangaroo-, wallabi-skins, undressed.
361. Leather, japanned or enamelled; goatskins, dressed as morocco, coloured (other than black).
362. Saddle-trees.
363. Saddlers' ironmongery (except bits and stirrup-irons), hames, and mounts for harness; straining, surcingle, brace, girth, and roller-webs; collar-check, and the same article plain, of such quality as may be approved by the Commissioner; legging-buckles.
364. Tanning materials, crude.

CLASS VIII.—FURNITURE, ETC.

365. Blind-webbing and tape.
366. Upholsterers' webbing, hair-seating, imitation hair-seating, curled hair; gimp and cord, of wool, cotton, or silk; tufts and studs.

CLASS IX.—CHINA, GLASS, ETC.

367. Bottles, empty, plain glass, not being cut or ground; also jars up to 3 in. in diameter at the mouth.
368. Glass plates (engraved) for photo-lithographic work.
369. Jars or other dutiable vessels, containing free goods or goods subject to a fixed rate of duty, and being ordinary trade packages for the goods contained in them.

CLASS X.—FANCY GOODS, ETC.

370. Action-work and keys, in frames or otherwise, for manufacture of organs, harmoniums, and pianos; organ-pipes and stop-knobs.
371. Artists' canvas, colours, brushes, and pallet-knives.
372. Magic-lanterns, lenses, and slides.
373. Microscopes and astronomical telescopes, and lenses for same.
374. Musical instruments, specially imported for Volunteer bands.
375. Paintings, statuary, and works of art, presented to or imported by any public institution or art association registered as a body corporate, for display in the buildings of such institution or association, and not to be sold or otherwise disposed of.

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* Whenever any dispute arises as to the application of the exemption in favour of coloured cotton, flannelette, or union shirtings, in the case of fabrics alleged to be such shirtings, the Commissioner has power to decide such dispute: and in case of doubt on his part, he may require the fabric in dispute to be cut up for shirt-making, under such conditions as he prescribes.

376. Photographic cameras and lenses.
377. Photographs of personal friends in letters or packet .
378. Precious stones, cut or uncut and unmounted.
379. Sensitized surfaces for photographic purposes.

CLASS XI.—PAPER, ETC.

380. Bookbinders' materials—viz., cloth, leather, thread, headbands, webbing, end-papers, tacketing-gut, marbling-colours, marble-paper, blue-paste for ruling-ink, staple-presses, wire-staples, staple-sticks.
381. Butter-paper, known as parchment paper or waxed paper.
382. Cardboard and pasteboard, of sizes not less than that known as "royal."
383. Cardboard boxes, materials for—viz., gold and silver paper, plain and embossed, gelatine and coloured papers, known as "box-papers."
384. Cartridge paper, for drawing-books.
385. Cloth-lined boards, not less than "royal."
386. Cloth-lined papers; enamelled-paper; ivorite and gelatine; metallic paper, not less than "demy."
387. Copy-books and drawing-books.
388. Copying-paper, medium and double-foolscap, in original mill wrappers and labels.
389. Hand-made cheque-paper.
390. Ink, printing.
391. Masticated para.
392. Millboard and bookbinders' leather-board.
393. Paper, hand-made or machine-made book or writing, of sizes not less than the size known as "demy," when in original wrappers.
394. Printing-paper.
395. Printed books, papers, and music n.o.e.
396. School slates, and educational apparatus.

CLASS XII.—METALS.

397. Anchors.
398. Artificers' tools.
399. Axes and hatchets; spades, shovels, and forks; picks; mattocks; quartz and knapping-hammers; scythes, sheep-shears, reaping-hooks; soldering-irons, paperhangers' scissors; butchers' saws and cleavers.
400. Axles, axle-arms, and boxes.
401. Band-saws and folding-saws, including frames.
402. Bellows nails.
403. Bicycles and tricycles, fittings for—viz., rubber-tires, pneumatic-tires, outside covers, and inner tubes; rubber and cork handles, and pedal-rubbers; also drop-forgings and stampings, ball-bearings, weldless steel tube in full lengths, rims, forks, and spokes, in the rough.
404. Blacksmiths' anvils, forges, and fans.
405. Bolts, 5in. by ½in. in diameter, and under, and nuts for same.
406. Brass and copper, in pigs, bars, tubes, or sheets.
407. Brass tubing and stamped work, in the rough, for gasaliers and brackets.
408. Caps, percussion.
409. Card-clothing for woollen-mills.
410. Chains, trace and plough chains; or metal articles required to repair or complete riding or driving harness or saddlery to be repaired or made in the colony.
411. Copper and composition rod, bolts, sheathing, and nails.
412. Couch-roll jackets, machine-wires, beater-bars, and strainer-plates for paper-mills.
413. Crucibles.
414. Emery-grinding machines and emery-wheels.
415. Empty iron drums, not exceeding 10 gallons capacity.
416. Engineers' machine tools.
417. Eyelets.

418. Fire-engines, including Merryweather's chemical fire-engines.
419. Fish-hooks.
420. Galvanising-baths, welded.
421. Gas-engines and hammers, and oil-engines.
422. Glassmakers' moulds.
423. Hydraulic cranes.
424. Iron- and brass-wove wire and wire-gauze; also wire netting.
425. Iron boiler-plates and unflanged end-plates for boilers; boiler-tubes not exceeding 6in. in diameter, and unflanged; Bowling's expansion rings; furnace-flues.
426. Iron, plain black sheet, rod, bolt, bar, plate, hoop, and pig.
427. Iron rolled girders.
428. Iron plates, screws, and castings for ships.
429. Iron wire n.o.e., including fencing-wire, plain and barbed.
430. Lead, in pigs and bars.
431. Locomotives.
432. Machine saws.
433. Machinery for gold-saving purposes and processes.
434. Metal fittings for trunks, portmanteaux, travelling-bags, leggings, bags, and satchels.
435. Metal sheaves for blocks.
436. Metallic capsules.
437. Perambulators and the like vehicles, fittings for, n.o.e.
438. Perforated or cellular sheet zinc or iron.
439. Printing type and materials n.o.e.
440. Rails for railways and tramways.
441. Reapers and binders, and reaping and mowing machines, and extra parts for same; materials for manufacturing agricultural machinery—namely, reaper-knife sections, fingers, brass and steel springs, malleable castings, discs for harrows, mould-boards and plough-shares, mould-board plates, and steel share-plates cut to pattern, skeith-plates; ploughs and harrows, combined threshers.
442. Riddles and sieves.
443. Rivets and washers.
444. Separators and coolers for dairying purposes.
445. Set-screws, engineers' studs, and split-pins.
446. Sewing-, knitting-, and kilting-machines.
447. Spiral springs (except sofa- and mattress-springs).
448. Steam and hydraulic pressure and vacuum gauges.
449. Surveyors' steel bands and measuring-tapes.
450. Swords.
451. Tacks of all kinds.
452. Tea-packing lead.
453. Tin, in pigs, bars, or sheets.
454. Tinsmiths' fittings, including stamped or blocked tin, planished or unplanished.
455. Tins, tops of, ornamented.
456. Wire, of brass, copper, or lead.
457. Zinc, plain sheet.
458. Zinc plates and copper plates for photo-lithographic work.

CLASS XIII.—TIMBER, ETC.

459. Ash, hickory, and lancewood timber, unwrought.
460. Blacksmiths' bellows.
461. Brush woodware.
462. Carriage- and cart-shafts, spokes and felloes in the rough; hubs, all kinds; poles if unbent and unplaned, all kinds; bent wheel-rims.
463. Carriage- and cart-makers' materials—viz., springs, mountings, trimmings, brass hinges, tire-bolts, shackle-holders, step treads, and other iron fittings (except steps, lamp-irons, dash-irons, seat-rails, and fifth wheels), rubber-cloth.

464. Churns.
465. Lignum-vitæ.
466. Sieves, hair.
467. Wooden handles for tools.

CLASS XIV.—OILS, ETC.

468. Benzine in bulk.
469. Oils—viz., candlenut, fish, whale, seal, penguin, and palm.
470. Paints and colours n.o.e.
471. Shale oil, once run, suitable for gas-making.
472. Spirits of tar.
473. Turpentine, driers, and terebene.

CLASS XV.—MISCELLANEOUS.

474. Apparatus and appliances solely for teaching purposes, as may be approved by the Commissioner.
475. Belting for machinery, other than leather.
476. Binder-twine.
477. Bricks, other than fire-bricks.
478. Building materials n.o.e.
479. Brushes for cream-separators and combined screens.
480. Candlenuts and candlenut kernels.
481. Candlewick.
482. Canvas aprons and elevators for reapers and binders.
483. Carpenters' baskets.
484. Charts and maps.
485. Cotton waste.
486. Dye-stuffs and dyeing materials, crude.
487. Felt sheathing.
488. Food preservative n.o.e.
489. Gum boots.
490. Hawsers of 12 in. and over.
491. Honey and brown Windsor soap composition.
492. Iron and steel cordage.
493. Jute bagging, bags, and sacks.
494. Manures.
495. Marble and other stone, hewn or rough-sawn, not dressed or polished.
496. Netmakers' cotton twine.
497. Official supplies for consular officers of countries where a similar exemption exists in favour of British Consuls.
498. Papermakers' felts.
499. Passengers' baggage and effects, including only wearing apparel and other personal effects that have been worn or are in use by persons arriving in the colony; also implements, instruments, and tools of trade, occupation, or employment of such persons; and household or other effects not exceeding £100 in value, which have been in use for twelve months prior to embarkation by the persons or families bringing them to the colony, and not intended for any other person or persons or for sale; also cabin furnishings belonging to such persons.
500. Plaster of Paris.
501. Powder, blasting and meal.
502. Ship-chandlery n.o.e.
503. Ships' rockets, blue-lights, and danger-signals.
504. Spirits for manufacturing perfumed spirit, flavouring essences, and culinary essences in manufacturing warehouses.*
505. Stones, mill-, grind-, oil-, and whet-.

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* This exemption ceased on the 1st day of February, 1896.

506. Tobacco for sheepwash or for insecticide, after being rendered unfit for human consumption to the satisfaction of the Commissioner.
507. Treacle or molasses, mixed with bone-black in proportions to the satisfaction of the Commissioner.
508. Tubular woven cotton-cloth in the piece, for meat-wraps.
509. Type-writers.
510. Wax, bottling.
511. Woolpacks and woolpockets.
512. Yarn—viz., coir, flax, hemp.
513. Articles and materials (as may from time to time be specified by the Commissioner) which are suited only for, and are to be used solely in, the fabrication of goods within the colony. All decisions of the Commissioner in reference to articles so admitted free to be published from time to time in the *Gazette*.
514. And all articles not otherwise enumerated.

TABLE OF EXCISE DUTIES.

515. Tobacco, 1s. in the lb.*
516. Cigars, cigarettes, and snuff, 1s. 6d. the lb.*
517. Beer, 3d. the gallon.
518. Articles in which spirit is a necessary ingredient, manufactured in a warehouse appointed under section 26 of "The Customs Laws Consolidation Act, 1882," namely,—
    Pharmacopœia tinctures, essences, extracts, and medicinal spirits containing more than 50 per cent. of proof spirit, 9d. the lb.
    Pharmacopœia tinctures, essences, extracts, and medicinal spirits containing less than 50 per cent. of proof spirit, 3d. the pound.
    Culinary and flavouring essences, 12s. the liquid gallon, from 1st February, 1896.
    Perfumed spirit, 20s. the liquid gallon, from 1st February, 1896.
    Toilet preparations which are subject to 16s. the liquid gallon on importation, 12s. the liquid gallon.
    Toilet preparations which are subject to 25 per cent. duty on importation, 6s. the liquid gallon.

DUTIES IMPOSED BY HIS EXCELLENCY THE GOVERNOR UNDER SECTION 17 OF "THE CUSTOMS AND EXCISE DUTIES ACT, 1888."

519. Olive stones, ground (see *New Zealand Gazette*, 15th May, 1890), 4d. the lb.
520. Brewers' caramel (see *New Zealand Gazette*, 21st August, 1890), 3d. the lb.
521. Liquid hops (see *New Zealand Gazette*, 21st December, 1893), 6s. the lb.
522. The United Asbestos Patent Salamander Decorations (see *New Zealand Gazette*, 14th May, 1896), 15 per cent. *ad valorem*.

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* "The Tobacco Excise Duties Act, 1896," section 2, enacts:—

"On and after the thirty-first day of December, one thousand eight hundred and ninety-six, section three of "The Customs and Excise Duties Act, 1891," shall be deemed to be repealed, and in lieu of the duties imposed by that section there shall be levied, collected, and paid, on and after that day, upon tobacco manufactured in the colony, at the time of making the entry for home consumption thereof, the several duties of excise following, that is to say,—

"On tobacco	... One shilling the pound,
"On cigars and snuff	... One shilling and sixpence the pound.
"On cigarettes—	
If manufactured by machinery ...	... Two shillings and sixpence the pound.
If made by hand	... One shilling the pound."

FEES PAYABLE UNDER LAND TRANSFER ACT.

Fees payable to District Land Registrars under "The Land Transfer Act, 1885."

	£	s.	d.
For the bringing land under the provisions of this Act (over and above the cost of advertisements)—			
When the title consists of a Crown grant, and none of the land included therein has been dealt with	0	2	0
When the title is of any other description and the value exceeds £300	1	0	0
When the title is of any other description and the value exceeds £200 and does not exceed £300	0	15	0
When the title is of any other description and the value exceeds £100 and does not exceed £200	0	10	0
When the title is of any other description and when the value does not exceed £100	0	5	0
Contribution to the Assurance Fund upon first bringing land under the Act, and upon the registration of an estate of freehold in possession derived by settlement, will, or intestacy—			
In the pound sterling	0	0	0½
Other fees—			
For every application to bring land under the Act	0	5	0
For every certificate of title on transfer where the consideration does not exceed £100	0	10	0
For every other certificate of title	1	0	0
Registering memorandum of transfer, mortgage, incumbrance, or lease	0	10	0
Registering transfer or discharge of mortgage or of incumbrance, or the transfer or surrender of a lease	0	5	0
Registering proprietor of any estate or interest derived by settlement or transmission	0	10	0
For every power of attorney deposited	0	10	0
For every registration abstract	1	0	0
For cancelling registration abstract	0	5	0
For every revocation order	0	10	0
Noting caveat	0	10	0
Cancelling or withdrawal of caveat, and for every notice relating to any caveat	0	5	0
For every search	0	2	0
For every general search	0	5	0
For every map or plan deposited	0	5	0
Eor every instrument declaratory of trusts, and for every will or other instrument deposited	0	10	0

Other fees—*continued.*	£	s.	d.
For registering recovery by proceeding in law or equity or re-entry by lessee	0	10	0
For registering vesting of lease in mortgagee, consequent on refusal of Trustee in Bankruptcy to accept the same	0	10	0
For entering notice of marriage or death	0	10	0
For entering notice of writ or order of Supreme Court	0	10	0
Taking affidavit or statutory declaration	0	5	0
For the exhibition of any deposited instrument, or for exhibiting deeds surrendered by applicant proprietor	0	5	0
For certified copy, not exceeding five folios	0	5	0
For every folio or part folio after first five	0	0	6
For every notice to produce deeds or instruments	0	5	0
For every outstanding interest noted on certificate of title ..	0	5	0
When any instrument purports to deal with land included in more than one grant or certificate, for each registration memorial after the first	0	2	0

Regulations.

All fees under the Act shall be due and payable in advance.

Where several properties are included in one form of application, there shall be charged in respect of each property an application fee, and a fee for bringing the land under the Act. Land included within one outer boundary shall be deemed one property for the purpose of this regulation.

In all cases a fee of one pound (£1) is hereby prescribed as the charge to be made for advertising notice of application; provided that, whenever it is necessary that unusual publicity shall be given to any application, the District Land Registrar may require payment of such additional sum as shall, in his judgment, be sufficient to defray the cost of such advertisements.

In all cases where application is made to bring land under the Act, and the certificate of title is directed to issue and is issued in the name of the applicant, the fees for bringing such land under the Act, with the exception of the "application fee," may, at the request of the applicant, remain unpaid until such land is dealt with by him as registered proprietor. The District Land Registrar shall retain any such certificate of title until the fees due upon the same have been paid, and, until such payment, shall not register any dealing with the land included in such certificate of title.

Printed forms supplied by the Registrar for use under the Act shall be charged for at the rate of one shilling each. Solicitors, land-brokers, and others having forms printed for their own use, and at their own expense, shall, on approval of such forms by the Registrar, be entitled to have the same sealed free of charge.

DUTIES ON ESTATES OF DECEASED PERSONS.

By the Amendment Act of 1885 the Schedule of Duties payable under the principal Act of 1881 has been repealed, and the following imposed in lieu thereof:—

1. When the value does not exceed £100	No duty
2. Upon any amount exceeding £100 but not exceeding £1,000—	
On the first £100	No duty
And on the remainder	£2½ per cent.
3. Upon any amount exceeding £1,000 but not exceeding £5,000	£3½ per cent.
4. Upon any amount exceeding £5,000, but not exceeding £20,000	£7 per cent.
Upon £20,000 and any amount over that sum	£10 per cent.
Strangers in blood, excepting adopted children	£3 per cent. additional.

These duties are leviable upon the final balance of the real and personal estates.

The exemption in respect of property passing absolutely to widow at death of husband is now extended *vice versâ*.

There are also special provisions in the law affecting children and half children inheriting property, as to deeds of gift, &c.

PART II.—STATISTICAL INFORMATION.

[The progress of the colony from the beginning is shown in the statistical broadsheets which follow the General Index.]

SECTION I.—POPULATION.

The estimated population of New Zealand on the 31st December, 1899, with the increase for the year, is shown below :

	Persons.	Males.	Females.
Estimated population (exclusive of Maoris) on 31st December, 1898	743,463	392,124	351,339
Increase during year 1899 :—			
By excess of births over deaths	11,155	5,260	5,895
Excess of arrivals over departures	1,887	1,295	592
Estimated population, exclusive of Maoris, on 31st December, 1899	756,505	398,679	357,826
Maori population (1896)	39,854	21,673	18,181
Total estimated population of Colony on 31st December, 1899	796,359	420,352	376,007

The number of the Chinese in New Zealand at the end of the year 1899 was estimated to be 3,263 persons, of whom 33 were females.

Increase of Population.

The increase for each quarter of the year 1899 was :—

Increase from:	Total.	Males.	Females.
First Quarter.			
Excess of births over deaths	2,984	1,416	1,568
Excess of arrivals over departures	229	298	−69
	3,213	1,714	1,499
Second Quarter.			
Excess of births over deaths	2,733	1,320	1,413
Excess of departures over arrivals (decrease)..	−1,478	−911	−567
	1,255	409	846
Third Quarter.			
Excess of births over deaths	2,727	1,252	1,475
Excess of arrivals over departures	369	210	159
	3,096	1,462	1,634
Fourth Quarter.			
Excess of births over deaths	2,711	1,272	1,439
Excess of arrivals over departures	2,767	1,698	1,069
	5,478	2,970	2,508
Year 1899.			
Excess of births over deaths	11,155	5,260	5,895
Excess of arrivals over departures	1,887	1,295	592
	13,042	6,555	6,487

The movement of population since 1885 is given next. Although the large increase in 1893 by excess of arrivals over departures was not maintained during the six following years, the arrivals in the colony nevertheless exceeded the departures in each of these years, and the total excess of arrivals for the eight-year period 1892–99 inclusive is found to be 27,325 persons, drawn from other colonies or countries. The number may be somewhat greater than the actual fact, but probably not very much so. Reference to the possible source of error and its degree will be found further on.

Year.	Estimated Population on the 31st December.	Increase during the Year			Centesimal Increase on Population of Previous Year.
		By Excess of Births over Deaths.	By Excess of Arrivals over Departures.*	Net Increase.	
1885	575,172	13,612	−2,744†	10,868	1·93
1886	589,386	13,164	−17,194†	58,886	10·24
1887	603,361	12,998			
1888	607,380	13,194			
1889	616,052	12,685			
1890	625,508	12,284			
1891	634,058	11,755			
1892	650,433	11,417	4,958	16,375	2·58
1893	672,265	11,420	10,412	21,832	3·36
1894	686,128	11,610	2,253	13,863	2·06
1895	698,706‡	11,683	895	12,578	1·83
1896	714,162	12,180	1,472	13,652‡	1·95
1897	729,056	12,142	2,752	14,894	2·09
1898	743,463	11,711	2,696	14,407	1·98
1899	756,505	11,155	1,887	13,042	1·75

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* Corrected in accordance with census results of 1886, 1891, and 1896. The amount of loss by departures in the period 1886–91, though correct in the aggregate, cannot be allocated with exactness to the respective years. † Loss.

‡ The results of the census taken in April, 1896, disclosed the fact that the estimate of population for December, 1895, was too low by 1,804 persons. Adding this number to the increase for 1896 (13,652 persons) makes 15,456, which is the difference between the populations given for the years 1895 and 1896.

POPULATION OF PROVINCIAL DISTRICTS.

At a distance of four years' time from the date of the census it is impossible to state with anything like certainty of accuracy what the populations of the provincial districts may be. The natural increase by excess of births over deaths is correctly found and added, but the internal movement of people cannot be measured; and, in respect of the North and Middle Islands, it is known that a process of leaving the south and settling in the north has been going on for a long while. Further, the arrivals in the colony of persons from abroad and the departures to places outside New Zealand are counted in the Customs returns as at the first port of entry and the last of departure. Thus, the total excess of arrivals over departures has to be afterwards divided amongst the provincial districts proportionally, which is certainly not a method likely to give perfectly true results, though it is the best perhaps that can possibly be adopted for the years lying between those on which the quinquennial census is taken.

From the foregoing remarks, it will be seen that the estimated populations given below are no doubt too high for the Middle Island and too low for the North, but there is no means of allowing for the presumed error. The figures are given subject to these qualifications:—

ESTIMATED POPULATIONS OF PROVINCIAL DISTRICTS, 31ST DECEMBER, 1899.

(Figures given subject to previous remarks.)

	Persons.		Persons.
Auckland	165,793	Westland	15,042
Taranaki	34,486	Canterbury	145,058
Hawke's Bay	37,139	Otago	174,664
Wellington	132,420	*Chatham Islands* ..	255
Marlborough	13,499	*Kermadec Islands* ..	7
Nelson	38,142		

Estimated total population of colony, excluding Maoris, Dec. 31, 1899, 756,505

CENSUS, 1896.

The population of the colony (exclusive of Maoris), as returned in the census schedules for the night of the 12th April, 1896, was 703,360 persons, of whom 3,711 were Chinese, and 2,259 half-castes living amongst and as Europeans.

A census of the Maori population was taken during February of 1896, when the number of the Native race was found to be 39,854 persons, including 3,503 half-castes living as Maoris. 229 Maori women were returned as married to European husbands. The complete population (European and Maori) of the colony was therefore 743,214 persons, as exhibited in the following statement, specifying the numbers for each sex:—

	Persons.	Males.	Females.
Population (exclusive of persons of the aboriginal native race, of mixed European and Native blood, and Chinese)	697,390	366,607	330,783
Half-castes and persons of mixed race living as and among Europeans	2,259	1,123	1,136
Chinese	3,711	3,685	26
Aboriginal natives (including 229 Maori wives of Europeans)	36,351	19,729	16,622
Half-castes and persons of mixed race living among and as members of Maori tribes ..	3,503	1,944	1,559
Total population on 12th April, 1896	*743,214	393,088	350,126

The total half-caste or mixed European and Native population was 5,762 persons. The number of half-castes living among Europeans increased since 1891 by 75, or at the rate of 3·4 per cent. In that year the number of Maori wives of Europeans was 251; in 1896 it was 229. The Chinese decreased from 4,444 at the time of the census of 1891 to 3,711 in April, 1896; or at the rate of 16·5 per cent., caused mainly by the excess of departures over arrivals.

The Maori population fell from 41,993 in 1891 to 39,854 in 1896, according to the returns.

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* Not including 171 persons, officers and crew of a British man-of-war.

The increase on the total European population between April, 1891, and April, 1896, amounted to 76,702 persons, or a rate of 12·24 per cent. Between the census of 1886 and that of 1891 the numerical increase was 48,176 persons, or 8·33 per cent., so that an improved progress was made during the last five-year period to the extent of 3·91 per cent. The average annual increase in the period 1891–96 was at the rate of 2·33 per cent.

The population of the principal divisions of the colony in April, 1896, was—

	Persons.	Males.	Females
North Island and adjacent islets (exclusive of Maoris)	340,631	181,089	159,542
Middle Island and adjacent islets (exclusive of Maoris)	362,236	190,038	172,198
Stewart Island	252	152	100
Chatham Islands (exclusive of Maoris) ..	234	132	102
Kermadec Islands	7	4	3
Total for the colony (exclusive of Maoris)	703,360	371,415	331,945

POPULATION OF COUNTIES.

New Zealand is, by "The Counties Act, 1876," divided into counties and boroughs, excepting certain outlying islands, which are not within county boundaries. It is provided by the above-mentioned Act that boroughs shall not be included in counties. In April, 1896, the number of the counties was 81. Of these, the North Island had 47, with a population amounting altogether to 191,374 persons. The Middle Island had 33 counties, the population being 200,117 persons. Stewart Island is a county in itself, and had a population of 244 persons. The names and populations of the various counties in the colony were as under at the date of the enumeration:—

Counties.	Census, 1896.	Counties.	Census, 1896.	Counties.	Census, 1896.
Mongonui ...	1,889	Tauranga ...	1,622	Pahiatua ...	3,208
Whangaroa ...	969	Whakatane ...	1,988*	Wairarapa North ...	7,209*
Hokianga ...	1,909	Waiapu ...	447	Wairarapa South ...	5,409
Bay of Islands	2,723	Cook	5,287	Hutt	5,750
Hobson	3,750	Clifton	1,450	Sounds	747
Whangarei ...	6,847†	Taranaki ...	9,970	Marlborough ...	6,330
Otamatea ...	2,483	Stratford ...	5,141†	Kaikoura ...	1,575
Rodney ...	3,464	Hawera ...	6,934	Collingwood ...	2,509
Waitemata ...	6,762	Patea	3,084	Waimea ...	8,591
Eden	15,940	Waitotara ...	2,737	Buller	4,833
Manukau ...	12,185	Wanganui ...	3,095	Inangahua ...	4,254
Coromandel ...	4,987	Rangitikei ...	6,030	Grey	4,592
Thames ...	4,515	Kiwitea ...	2,428	Westland ...	4,723
Ohinemuri ...	4,761	Oroau	6,450	Amuri	916
Piako	2,706†	Pohangina ...	1,351	Cheviot ...	1,042
Waikato ...	2,814	Manawatu ...	2,709	Ashley	11,913
Waipa	3,584	Horowhenua ...	3,792	Selwyn	30,090†
Raglan	1,545	Hawke's Bay ...	6,894	Akaroa	3,886
Kawhia ...	598	Wairoa	1,490	Ashburton ...	10,820
West Taupo ...	156	Waipawa ...	8,866		
East Taupo ...	232	Patangata ...	2,374		
Rotorua ...	840				

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* Since the census was taken in 1806 four new counties have been constituted: Akitio, Eketahuna, and Mauriceville, cut out of Wairarapa North County; and Opotiki, cut out of Whakatane. † Since the 12th April, 1896, the following new boroughs have been constituted: New Brighton (population 800 in 1898), cut out of Selwyn County; Whangarei (population 1,250 in 1898), cut out of Whangarei County; Te Aroha (population 600 in 1899), cut out of Piako County; Stratford (population 1,700 in 1899), cut out of Stratford County.

Counties.	Census, 1896.	Counties.	Census, 1896.	Counties.	Census, 1896.
Geraldine ...	7,499	Peninsula ...	2,645	Vincent ...	4,090
Levels	7,723	Taieri	6,950	Lake	2,663
Mackenzie ...	1,514	Bruce	4,828	Southland ...	21,603
Waimate ...	4,777	Tuapeka ...	6,477	Wallace ...	6,657
Waitaki... ...	8,876	Clutha	6,5	Fiord	151
Waihemo ...	2,148	Maniototo ...	3,742	Stewart Island	244
Waikouaiti ...	4,389				

As before stated, the total county population amounted to 391,735, or 55·69 per cent. of the total for the colony.* In counties are included all towns not constituted municipal boroughs; but, on the other hand, the people living in many of the boroughs can hardly be called town population. The population in boroughs was 307,294 persons, or 43·69 per cent. of the whole. For every 100 persons resident in counties in 1896 there were 78 residing in boroughs. In 1891 the counties had 352,097 persons, and the boroughs 270,343, or, in other words, for every 100 persons in counties, 76 were residents of the boroughs. Thus it will be seen that the proportion of the town to the county population was slightly greater in 1896 than in 1891.

POPULATION OF BOROUGHS.

The populations of the municipal boroughs in the colony, as estimated for the year 1899, are stated, there being no means of giving exact information until another census enumeration has been made, which will be in April of the year 1901.

Boroughs.	Estimated Population 1899.	Boroughs.	Estimated Population 1899.	Boroughs.	Estimated Population 1899.
Whangarei ...	1,500	Wellington ...	42,966	Maori Hill ...	1,603
Birkenhead ...	780	Karori ...	1,096	West Harbour	1,364
Devonport ...	3,430	Melrose ...	2,400	Dunedin ...	23,560
Auckland ...	38,400	Picton ...	870	Roslyn ...	4,454
Grey Lynn† ...	3,331	Blenheim ...	2,970	Mornington ...	3,854
Newmarket ...	2,170	Nelson ...	7,120	Caversham ...	4,838
Parnell ...	4,402	Richmond ...	610	St. Kilda ...	1,420
Onehunga ...	2,913	Westport ...	3,200	South Dunedin	5,158
Te Aroha ...	600	Greymouth ...	3,423	Green Island...	700
Thames ...	5,000	Brunner ...	1,200	Mosgiel ...	1,500
Hamilton ...	1,250	Kumara ...	1,150	Milton ...	1,500
Cambridge ...	880	Hokitika ...	2,463	Kaitangata ...	1,400
Tauranga ...	1,050	Ross	750	Balclutha ...	1,000
Gisborne ...	2,500	Rangiora ...	1,871	Lawrence ...	1,050
New Plymouth	4,041	Kaiapoi ...	1,880	Roxburgh ...	500
Stratford ...	1,700	Christchurch...	18,500	Tapanui ...	450
Hawera ...	2,300	Linwood ...	6,707	Naseby ...	550
Patea ...	800	St. Albans ...	6,440	Cromwell ...	580
Wanganui ...	6,842	Sydenham ...	11,388	Alexandra ...	600
Marton ...	1,200	Woolston ...	2,305	Arrowtown ...	400
Feilding ...	2,150	Sumner ...	592	Queenstown ...	750
Palmerston North ...	6,263	New Brighton	900	Gore	2,800
Foxton (1898) ...	1,140	Lyttelton ...	4,026	Mataura ...	950
Hastings ...	3,300	Akaroa ...	630	Winton ...	400
Napier ...	9,486	Ashburton ...	2,100	Invercargill ...	5,681
Dannevirke ...	1,700	Timaru ...	5,795	North Invercargill ...	950
Woodville ...	1,150	Waimate ...	1,500	South Invercargill ...	1,950
Pahiatua ...	1,200	Oamaru ...	5,411	East Invercargill	985
Masterton ...	3,800	Hampden ...	320	Avenal ...	350
Carterton ...	1,300	Palmerston South ...	775	Gladstone ...	380
Greytown ...	1,120	Hawksbury ...	730	Campbelltown	1,200
Lower Hutt ...	1,550	Port Chalmers	2,100	Riverton ...	1,000
Petone ...	3,250	North-east Valley ...	3,540		
Onslow ...	1,400				

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* For population of ridings, road districts, and localities, see Census volume, p. 32, Part I.

† Formerly known as Newton.

The Cities of Auckland, Christchurch, and Dunedin have considerable suburbs. The suburban population of Wellington is comparatively small. The following gives the names and populations of the several localities which may fairly be termed suburbs of the four principal cities:—

SUBURBS OF AUCKLAND.

	Estimated Population, Dec., 1899.
Boroughs—	
Birkenhead	780
Devonport	3,430
Newmarket	2,170
Grey Lynn (Newton) ..	3,331
Parnell	4,402
Road Districts—	
Arch-hill	1,557
Eden Terrace	1,604
Epsom	660
Mount Albert	1,668
Mount Eden	3,677
Mount Roskill	495
One-tree Hill	975
Point Chevalier ..	591
Remuera	2,034
Northcote Riding ..	530
Outlying portion of Parnell Riding, being land in the Domain with hospital on it	197
Total suburbs ..	28,101
Auckland City ..	38,400
Total Auckland and suburbs ..	66,501

SUBURBS OF WELLINGTON.

Boroughs—	
Onslow	1,400
Melrose	2,400
Karori	1,096
Total suburbs ..	4,896
Wellington City ..	42,966
Total Wellington and suburbs ..	47,862

SUBURBS OF CHRISTCHURCH.

	Estimated Population, Dec., 1899.
Boroughs—	
St. Albans	6,440
Sydenham	11,388
Linwood	6,707
Woolston	2,305
Road Districts—	
Avon (part)	2,962
Heathcote (part) ..	1,980
Riccarton (part) ..	3,657
Spreydon	1,278
Halswell (part).. ..	224
Total suburbs ..	36,941
Christchurch City ..	18,500
Total Christchurch and suburbs ..	55,441

In laying off the suburbs of Christchurch the boundaries of the Christchurch Health District have been mainly followed.

SUBURBS OF DUNEDIN.

Boroughs—	
Caversham	4,838
Maori Hill	1,603
Mornington	3,854
North-East Valley ..	3,540
Roslyn	4,454
St. Kilda	1,420
South Dunedin ..	5,158
West Harbour	1,364
Total suburbs ..	26,231
Dunedin City ..	23,560
Total Dunedin and suburbs ..	49,791

The increase of population for eight years at the four chief centres, with their suburbs, was:—

	Census, 1891.	Dec., 1899. Estimated.	Numerical Increase.	Increase per Cent.
Auckland and suburbs ..	51,287	66,501	15,214	29·66
Wellington and suburbs ..	34,190	47,862	13,672	39·99
Christchurch and suburbs ..	47,846	55,441	7,595	15·87
Dunedin and suburbs ..	45,869	49,791	3,922	8·55

Thus the two principal cities of the North Island are found to have progressed between 1891 and 1899 at a greater rate than those of the Middle Island, and Wellington in particular to have developed at nearly five times the rate of Dunedin, and more than twice as fast as Christchurch.

While New South Wales and Victoria present what is termed by the statistician of the former colony "the disquieting spectacle of capital towns growing with wonderful rapidity, and embracing in their limits one-third of the population of the territory of which they are the centre," New Zealand is saved from this by the configuration of the country, which has resulted in the formation of four chief towns, besides others of secondary importance but nevertheless trading centres.

POPULATION OF TOWN DISTRICTS AND SMALL CENTRES.

Besides the boroughs, there are 37 town districts (including the special town district of Rotorua, constituted under "The Thermal-Springs Districts Act, 1881,") which are portions of the counties in which they are situated. One only of these, Hampstead, has more than 1,000 inhabitants. A list of these town districts is subjoined, with populations, as in 1896:—

Town Districts.	Population.	Town Districts.	Population.
Kamo	222	Ormondville	453
Helensville	564	Waipawa	764
Papakura	274	Kaikora North	301
Te Awamutu	347	Featherston	711
Kihikihi	202	Johnsonville	493
Ngaruawahia	235	Havelock	365
Rotorua*	499	Amberley	437
Opotiki	641	Southbridge	494
Waitara (Raleigh)	517	Hampstead	1,214
Opunake	400	Tinwald	538
Inglewood	658	Geraldine	841
Normanby	396	Temuka	660
Manaia	471	Arowhenua	789
Waverley	442	Allanton (formerly Grey)	274
Lethbridge	251	Outram	452
Bulls	521	Clinton	474
Halcombe	376	Wyndham	483
Clyde (Wairoa)	579	Otautau	367
Taradale	807		

In addition to the boroughs and town districts above referred to, the census results showed for 1896 throughout the colony no less than 561 places of the nature of townships, villages, or small centres without boundaries. One of these (New Brighton) has since been constituted a borough. It is impossible to say that the populations of these small centres are all strictly accurate, even for the census date, or given in such a way as to be fit for comparison one with another. In different cases more or less of surrounding country may have been considered as belonging to the centre, but there is at least at each place mentioned some sort of nucleus of population, if not a well-defined village or township. In making the statement the best has been done with a difficult matter, and the information is given as useful—in some cases, like that of Reefton, important—even if open to objection here and there. The county in which each is situated is also given:—

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* Constituted under "The Thermal-Springs Districts Act, 1881."

	Population.
Abbotsford, Taieri	197
Adair, Levels	127
Adams's Flat (and vicinity), Bruce	72
Adamson's, Southland	80
Addington, Selwyn	480
Addison's Flat, Buller	277
Ahaura, Grey	252
Albert Town, Vincent	52
Albury, Mackenzie	96
Alford Forest, Ashburton	426
Alfredton, Wairarapa North	88
Allandale, Waihemo	93
Allenton, Ashburton	763
Alma, Waitaki	158
Alton, Patea	72
Anderson's Bay, Peninsula	489
Annat, Selwyn	72
Antonio's Flat, Inangahua	59
Aongatete, Tauranga	33
Apiti, Pohangina	110
Aratapu, Hobson	508
Arden, Taieri	85
Arthurtown, Westland	51
Arundel, Geraldine	78
Ashley, Ashley	70
Ashurst, Oroua	361
Athol, Southland	85
Avondale, Eden	872
Awanui, Waiapu	43
Bainfield, Southland	114
Bainham, Collingwood	106
Bald Hill Flat, Vincent	242
Ballance, Pahiatua	93
Bannockburn, Vincent	410
Barkly, Southland	146
Bay View, Southland	38
Beaconsfield, Levels	141
Beck's Maniototo	76
Belfast, Selwyn	600
Belgrove, Waimea	332
Bendigo, Vincent	56
Bennett's, Ashley	150
Berwick, Taieri	77
Birmingham,* Kiwitea	155
Blackball, Grey	176
Black's Point, Inangahua	283
Blackwater, Inangahua	163
Blue Spur, Westland	53
Bluestone, Tuapeka	188
Brighton, Taieri	57
Brightwater, Waimea	409
Broad Bay, Peninsula	301
Brockville, Taieri	44
Buffalo, Coromandel	146
Bunnythorpe (and vicinity), Oroua	309
Burke's, Mackenzie	90
Burnside, Taieri	159
Cabbage Bay, Coromandel	133
Calcium, Wallace	31
Callaghan's, Westland	47
Cambrian's Maniototo	134
Cambridge West, Waipa	255
Canvastown, Marlborough	54
Cape Foulwind, Buller	223
Capleston, Inangahua	170
Cardrona, Lake	176
Castlecliffe, Waitotara	269
Castlepoint, Wairarapa North	31
Caversham, Levels	37
Centre Bush, Southland	66
Charleston Buller	151
Charlton, Southland	32
Cheltenham, Kiwitea	43
Chertsey, Ashburton	93
Clareville, Wairarapa South	46
Clifton, Collingwood	58
Clyde, Vincent	310
Coalbrookdale, Buller	165
Coal Creek, Tuapeka	305
Coalgate, Selwyn	116
Cobden, Grey	274
Courtenay, Selwyn	67
Crofton, Rangitikei	113
Cromarty (and vicinity), Fiord	39
Crushington, Inangahua	108
Cullensville, Marlborough	136
Culverden, Amuri	40
Cust, Ashley	117
Dalefield, Wairarapa South	194
Danieltown, Wallace	34
Darfield and Horndon, Selwyn	262
Dargaville, Hobson	358
Deborah, Waitaki	60
Deborah Bay, Waikouaiti	131
Denlair, Wanganui	52
Denniston, Buller	181
Dillman's, Westland	467
Dipton, Southland	86
Doyleston, Selwyn	241
Dromore, Ashburton	54
Drummond, Wallace	213
Dunback, Waihemo	134
Dunganville, Grey	125
Dunkeld, Tuapeka	80
Dunsandel, Selwyn	153
Duntroon, Waitaki	195
Durie Town, Wanganui	172
Duvauchelle's Bay, Akaroa	89

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* Now known as Kimbolton. (*Gazette*, 5th January, 1899.)

East Clive, Hawke's Bay	239
East Dipton, Southland	162
Eastown, Wanganui	228
East Winton, Southland	137
Edendale, Southland	184
Eketahuna, Wairarapa North	476
Eltham, Hawera	306
Enfield, Waitaki	254
Epworth, Geraldine	62
Ettrick, Tuapeka	69
Evansdale, Waikouaiti	45
Eweburn, Maniototo	166
Fairdown, Buller	44
Fairfax (and vicinity), Bruce	171
Fairfield, Taieri	80
Fairlie, Mackenzie	369
Fendalton, Selwyn	367
Fernhills, Southland	67
Fernside, Ashley	390
Ferntown, Collingwood	81
Flax Swamp, Waikouaiti	88
Flaxton, Ashley	138
Fordell, Wanganui	151
Fortrose, Southland	140
Frankton, Lake	156
Frasertown, Wairoa	176
Galatea, Whakatane	82
Garfield, Wallace	41
Georgetown, Geraldine	34
Georgetown, Waitaki	119
German Bay, Akaroa	212
Gibbston, Lake	155
Gibbstown, Collingwood	181
Gimmerburn, Maniototo	178
Glenavy, Waimate	55
Gleniti (and vicinity), Levels	111
Glenore (and vicinity), Bruce	91
Glentunnel, Selwyn	189
Goldsborough, Westland	179
Gordon Special Settlement, Piako	70
Governor's Bay, Akaroa	163
Granity Creek, Buller	193
Grassmere, Southland	104
Greatford, Rangitikei	90
Greendale, Selwyn	370
Green Island Bush, Taieri	237
Greenpark, Selwyn	349
Greenstone, Grey	100
Greerton, Tauranga	54
Grovetown, Marlborough	316
Gumtown, Coromandel	51
Hakaru, Otamatea	34
Hakataramea, Waimate	90
Hamilton, Maniototo	50
Hampden, Waipawa	188
Hamua, Wairarapa North	103
Hardie's Taieri	82
Harwood, Southland	58
Hastings, Thames	101
Hastwell, Wairarapa North	169
Hatter's, or Nelson Creek, Grey	128
Havelock, Hawke's Bay	407
Hawarden, Ashley	32
Hawksbury, Waikouaiti	132
Heddon Bush, Wallace	119
Henderson, Waitemata	60
Henley, Taieri	303
Herbert, Waitaki	401
Herbertville, Patangata	113
Heriot (and outlying), Tuapeka	163
Highcliffe, Peninsula	278
Hikurangi, Whangarei	354
Hikutaia, Thames	179
Hillgrove, Waitaki	93
Hilton, Geraldine	47
Hindon, Taieri	117
Hirstfield, Wallace	169
Hobsonville, Waitemata	195
Hodgkinson, Wallace	60
Hororata, Selwyn	242
Howick, Manukau	220
Huirangi, Taranaki	50
Hunterville, Rangitikei	755
Huntly, Waikato	512
Hurunui, Ashley	53
Hyde, Maniototo	222
Ida Valley, Vincent	262
Inangahua Junction, Inangahua	31
Inglewood, Southland	73
Islington, Selwyn	207
Jackeytown, Oroua	72
Kaeo, Whangaroa	181
Kai Iwi, Waitotara	64
Kaikohe, Bay of Islands	134
Kaikoura, Kaikoura	394
Kaitaia, Mongonui	114
Kakanui (North), Waitaki	163
Kakanui (South), Waitaki	204
Kakaramea, Patea	110
Kanieri, Westland	175
Kapanga, Coromandel	500
Karangahake, Ohinemuri	609
Kaukapakapa, Waitemata	313
Kawakawa, Bay of Islands	321
Kawarau Gorge, Vincent	44
Kawhia, Kawhia	37
Kennedy Bay, Coromandel	72
Kennington, Southland	50
Kensington, Levels	167
Kereru (and vicinity), Horowhenua	135
Killinchy, Selwyn	54
Kimberley, Selwyn	162
Kingston, Lake	47
Kirwee, Selwyn	74
Kokonga, Maniototo	111
Kohukohu, Hokianga	262
Kopu, Thames	136
Kuaotunu, Coromandel	424
Kuaotunu Upper, Coromandel	299

Kumeroa, Waipawa	104
Kuri Bush, Taieri	46
Kuriwao, Clutha	122
Kurow, Waitaki	271
Kyeburn Diggings, Maniototo ..	97
Kyeburn, Lower, Maniototo ..	113
Kyeburn, Upper, Maniototo ..	72
Lake Hayes, Lake	104
Lamlash, Peninsula	31
Lauder, Maniototo	51
Le Bon's Bay, Akaroa ..	271
Leedstown, Rangitikei ..	36
Leeston, Selwyn	573
Leithfield, Ashley	345
Levin, Horowhenua	581
Lichfield, Piako	49
Lime Hills, Southland ..	126
Lincoln, Selwyn	569
Lintley, Southland	47
Linton, Oroua	51
Little Akaloa, Akaroa.. ..	259
Little River, Akaroa	137
Livingstone, Waitaki	110
London, Taieri	100
Long Bush, Southland ..	84
Longridge, Southland.. ..	105
Lowburn, Vincent	132
Lower Hawea, Vincent ..	225
Lower Woodstock, Westland ..	57
Lowther, Southland	28
Luggate, Vincent	76
Lumsden, Southland	223
Lumsden Extension, Southland	154
Lyell, Buller	159
Macandrew, Southland ..	72
Macetown, Lake	161
Mackaytown, Ohinemuri ..	32
Mackenzie, Cheviot	53
Macrae's (and vicinity), Waihemo	103
Maheno, Waitaki	206
Mairtown, Whangarei.. ..	177
Makakahi, Pahiatua	61
Makarewa, Southland.. ..	250
Maketu, Tauranga	72
Makikihi, Waimate	57
Makuri, Pahiatua	93
Makutoku, Waipawa	175
Mangamahoe, Wairarapa North	35
Mangaonoho, Rangitikei ..	166
Mangatainoko, Pahiatua ..	106
Mangawai, Otamatea	272
Mangaweka, Rangitikei ..	349
Mangawhare, Hobson.. ..	471
Manakau, Horowhenua ..	149
Mandeville, Southland ..	108
Mansfordtown, Waikouaiti ..	380
Manutahi, Patea	69
Manutahi, Taranaki	175
Maori Gully, Grey	58
Marlboroughtown, Marlborough	148
Marsden, Grey	44
Marshalltown, Kiwitea ..	63
Matakohe, Otamatea	93
Matamau, Waipawa	137
Matata, Whakatane	70
Martinborough, Wairarapa South	75
Maungatua, Taieri	63
Mauriceville East, Wairarapa North	77
Mayfield, Waitemata	76
Maxwelltown, Waitotara ..	153
Meanee, Hawke's Bay ..	145
Menzies' Ferry, Southland ..	125
Mercer (and vicinity), Manukau	210
Mercury Bay, Coromandel ..	472
Merryjigs, Inangahua	81
Merton, Waikouaiti	753
Methven, Ashburton	295
Middlemarch, Taieri	130
Midhirst, Stratford	248
Milford, Geraldine	247
Mohaka, Wairoa	36
Mokau, Kawhia	108
Mokihinui, Buller	45
Mongonui, Mongonui	226
Morley, Wallace	53
Morrinsville, Piako	151
Morton, Levels	235
Motueka, Waimea	877
Mount Somers, Ashburton ..	206
Mount Pisa, Vincent	49
Murchison, Inangahua ..	75
Nenthorn, Waikouaiti ..	59
Newman, Wairarapa North ..	227
Newport, Hobson	97
Ngahauranga, Hutt	212
Ngahere, Grey	137
Ngapara, Waitaki	233
Nightcaps, Wallace	167
Normanby, Levels	36
Norsewood (and vicinity), Waipawa	898
North Heads, Waikouaiti ..	78
North Taieri, Taieri	183
No Town, Grey	80
Nukumaru, Waitotara ..	93
Oakura, Taranaki	46
Oaklands, Peninsula	52
Oban, Stewart Island	41
Ohaeawai, Bay of Islands ..	92
Ohakune, Wanganui	40
Ohau (and vicinity), Horowhenua	256
Ohinemutu, Rotorua	131
Ohingaiti, Rangitikei	410
Ohoka, Ashley	654
Okaiawa, Hawera	107
Okaihau and Omapere, Bay of Islands	286

Okain's Bay, Akaroa	222
Okarito, Westland	62
Okato, Taranaki	64
Ongaonga, Waipawa	92
Ophir, Vincent	266
Opua, Bay of Islands	57
Oraka, Wallace	111
Orari, Geraldine	135
Oropi, Tauranga	37
Orwell Creek, Grey	105
Otago Heads, Peninsula	179
Otahuhu, Manukau	942
Otaki (and vicinity), Horowhenua	836
Otakia, Taieri	42
Otara, Southland	200
Otekaike, Waitaki	53
Otiaki, Waitaki	176
Owaka, Clutha	611
Owharoa, Ohinemuri	163
Owhiro, Taieri	38
Oxford East, Ashley	153
Oxford West, Ashley	241
Paeroa, Ohinemuri	779
Pahia, Wallace	84
Paikakariki, Hutt	146
Pakawau, Collingwood	71
Panmure, Eden	323
Papanui, Selwyn	479
Paraparaumu, Hutt	192
Parkville, Wairarapa North	233
Patangata, Patangata	103
Patutahi (and vicinity), Cook	263
Peel, Geraldine	53
Pembroke, Lake	176
Pigeon Bay, Akaroa	352
Pihama, Hawera	37
Piko, Levels	160
Pine Hill, Waikouaiti	88
Pipiriki, Wanganui	44
Pirongia East, Waipa	89
Pleasant Valley, Waikouaiti	34
Plimmerton, Hutt	49
Pohangina, Pohangina	163
Point, Levels	90
Porirua, Hutt	74
Porangahau, Patangata	171
Port Albert, Rodney	56
Port Moeraki, Waitaki	150
Portobello Town, Peninsula	37
Pourakino, Wallace	33
Prebbleton, Selwyn	330
Prestonville, Southland	107
Pukerau, Southland	126
Purakanui, Waikouaiti	47
Puriri, Thames	143
Raetihi, Wanganui	83
Rakaia, Ashburton	458
Rangiriri, Waikato	47
Rangiwhia (Pemberton), Kiwitea	63
Rangotea, Manawatu	136
Ranzau, Waimea	60
Rata Settlement, Rangitikei	195
Rawene, Hokianga	120
Redcliffe, Waimate	227
Reefton, Inangahua	1,591
Reidston, Waitaki	184
Renwicktown, Marlborough	324
Reynolds, Waikouaiti	38
Riccarton, Taieri	99
Riccarton, Lower, Selwyn	422
Riccarton, Upper, Selwyn	502
Richmond, Selwyn	288
Richmond Grove, Southland	96
Rikiorangi, Hutt	96
Rimu, Westland	174
Riversdale, Southland	265
Riwaka, Waimea	575
Rockville, Collingwood	102
Rolleston, Selwyn	136
Rotheram, Amuri	132
Rotorua, Rotorua	499
Round Hill Diggings, Wallace	225
Ruapekapeka, Bay of Islands	92
Russell, Bay of Islands	257
Sandymount, Peninsula	299
Sanson, Manawatu	255
Sarau, Waimea	58
Sawyer's Bay, Waikouaiti	382
Scarborough, Pahiatua	76
Sefton, Ashley	270
Selwyn, Selwyn	55
Shaftesbury, Piako	44
Shannon, Horowhenua	262
Sheffield, Selwyn	176
Shiel Hill, Peninsula	47
Shortland, Thames	1,191
Silverstream, Mackenzie	118
Skippers, Lake	63
Southbrook, Ashley	352
South Malvern, Selwyn	92
Spreydon, Selwyn	354
Springfield, Selwyn	211
Spring Grove, Waimea	361
Springston, Selwyn	584
Stafford, Westland	140
St. Andrews, Waimate	201
St. Bathans, Maniototo	254
Stirling (and vicinity), Bruce	211
Stoke, Waimea	547
Studholme Junction, Waimate	93
Swannanoa, Ashley	161
Swanson, Waitemata	88
Switzers, Southland	98
Taiaroa Heads, Peninsula	40
Tairua, Thames	141
Taitapu, Selwyn	376
Takapau, Waipawa	159
Tauherenikau, Wairarapa South	71
Taupaki, Waitemata	276
Taupo, East Taupo	72

Taupiri, Waikato	47
Taylorville, Wanganui	51
Te Aroha West, Piako	131
Te Aute, Waipawa	93
Teddington, Akaroa	103
Te Karaka, Cook	67
Te Kopuru, Hobson	184
Templeton, Selwyn	310
Te Puke, Tauranga	169
Thornbury, Wallace	125
Thorpe, Waimea	67
Tikokino, Waipawa	39
Tiniroto, Cook	57
Tinker's, Vincent	242
Tinui, Wairarapa North	221
Tokaanu, East Taupo	59
Toko, Stratford	134
Tokomaru, Horowhenua	88
Totara, Whangaroa	263
Tuakau, Manukau	377
Tutaekara, Pahiatua	74
Turua, Thames	247
Upper Hutt, Hutt	339
Upper Woodstock, Westland	167
Urenui, Clifton	91
Vauxhall, Peninsula	89
Waddington, Selwyn	121
Wade, Waitemata	208
Waianiwa, Southland	49
Waiau, Amuri	183
Waihi, Ohinemuri	1,102
Waihola, Bruce	142
Waihou, Piako	85
Waikaia, Southland	256
Waikaka, Southland	41
Waikanae, Horowhenua	84
Waikare, Ashley	258
Waikiwi, Southland	45
Waikoikoi, Clutha	215
Waimangaroa, Buller	399
Waimate, Bay of Islands	106
Waimatuku, Wallace	225
Waimea West, Waimea	293
Wainuiomata, Hutt	45
Waiomio, Bay of Islands	76
Waiorongomai, Piako	201
Waipahi, Clutha	109
Waipara, Ashley	48
Waipiro, Waiapu	73
Waipori, Tuapeka	157
Waipu Central, Whangarei	183
Waipukurau, Waipawa	549
Wairio, Wallace	81
Waitahuna, Tuapeka	289
Waitati (and vicinity), Waikouaiti	339
Waitekauri, Ohinemuri	463
Waitotara, Patea	207
Waituna, Kiwitea	37
Waiwera, Clutha	70
Wakefield, Waimea	694
Wallacetown, Southland	159
Wallingford, Patangata	65
Walton, Taieri	32
Wanstead, Patangata	80
Warepa, Clutha	257
Washdyke, Levels	494
Waterford, Tauranga	116
Waterton (and vicinity), Ashburton	235
Watlington, Levels	39
Wayne's, Waihemo	38
Weber, Patangata	108
Weedon's, Selwyn	43
Wereroa, Horowhenua	87
West Clive, Hawke's Bay	428
Weston, Waitaki	138
Weston Park, Waitaki	49
Whakakiti, Wairarapa North	71
Whakatane, Whakatane	119
Whangapoua, Coromandel	77
Whangaroa, Whangaroa	152
Whare Flat Road, Taieri	64
Whenuakiti, Coromandel	90
Whitecliffs, Selwyn	34
Whitmore, Oroua	75
Whitstone, Waitaki	84
Wickliffe Bay, Peninsula	41
Wimbledon, Patangata	79
Winchester, Geraldine	212
Windsor, Waitaki	99
Wingatui, Taieri	174
Woodbury, Geraldine	318
Woodend, Ashley	498
Woodend, Southland	96
Woodfield, Southland	46
Woodlands, Taieri	35
Woodlands, Southland	218
Woodside, Taieri	163
Wrey's Bush, Wallace	123

POPULATION OF ADJACENT ISLANDS.

The names and populations of the islands adjacent to and included in the colony were, in April, 1896:—

Islands.	Total.	M.	F.
Rangitoto	3	3	..
Great Barrier	307	193	114
Week's Island	2	1	1
Waiheke	166	76	90
Kawau	10	7	3
Motiti	9	8	1
Tiritiri	6	2	4
Ponui (Light)	1	1	..

Islands.	Total.	M.	F.	Islands.	Total.	M.	F.
Ponui Island	28	13	15	Portland	25	10	15
Cuvier	6	4	2	Kapiti	1	1	..
Moturoa	2	1	1	Somes's	9	3	6
Mercury	7	2	5	Stephens	16	7	9
Mokohinau	5	3	2	The Brothers	3	3	..
Motuhora	8	4	4	Quarantine	2	1	1
Bean Rock (Light)	1	1	..	Dog	13	5	8
Motuhihi	11	6	5	Ruapuki	9	9	..
Pahiki	10	7	3	Centre	15	10	5
Rakino	4	3	1	Chatham	234	132	102
Motutapu	11	8	3	Kermadec	7	4	3
Brown's	1	1	..				
Rotoroa (Ruth's)	15	6	9		950	538	412
Slipper	3	3	..				

The islands which are not included within the boundaries of the counties had in 1896 a population of 950 persons (exclusive of Maoris), against 913 in 1891. Only three of the islands had a population over 100 persons at last census. The population of the Great Barrier increased since 1891 from 262 to 307 persons; Waiheke showed a decrease from 215 to 166 persons. Europeans at the Chatham Islands decreased from 258 to 234.

POPULATION OF AUSTRALASIA.

The growth of population in these colonies over a period of thirty-nine years is shown in a comparative table. The total for 1899, being 4,482,980 persons, is greater than the population of Scotland, but very little less than that of Ireland for 1898, and more than one-seventh part of the population of England and Wales for that year. The Australasian Colonies have now twice the population of Denmark, over one-third more than Switzerland, and nearly that of the Netherlands.

Colony.	1860. Persons.	1870. Persons.	1880. Persons.	1890. Persons.	1899. Persons.
New South Wales	348,546	498,659	747,950	1,121,860	1,356,650
Victoria	537,847	726,599	860,067	1,133,266	1,163,400
Queensland	28,056	115,567	226,077	392,965	482,400
South Australia	124,112	183,797	267,573	319,414	370,700
Western Australia	15,227	25,084	29,019	46,290	171,030
Tasmania	87,775	100,765	114,762	145,290	182,300
New Zealand	79,711	248,400	484,864	625,508	756,500
Australasia	1,221,274	1,898,871	2,730,312	3,784,593	4,482,980

In respect of the five federating colonies, the official estimates adopted at the Conference held in Sydney (which exclude aborigines throughout) are as below :—

New South Wales	1,348,400
Victoria	1,162,900
Queensland	482,400
South Australia (including Northern Territory)	370,700
Tasmania	182,300

The total population as estimated for the group of federating colonies is thus 3,546,700 persons.

ARRIVALS AND DEPARTURES.

The number of persons who arrived in the colony in the year 1899 was 18,506, a decrease of 349 on the number for the previous year. Of the arrivals in 1899, 16,529 persons were classified as adults, being above the age of twelve years, and 1,977 as children. The total number of males was 11,862 and of females 6,644. The arrivals from the United Kingdom numbered 1,918, and from Australia 15,529. Besides these, 205 persons came from Fiji, and 854 from the South Seas and other ports, including arrivals by mail-steamers from San Francisco.

Classified in respect of birthplace, it is found that 7,092 of the arrivals were persons born in the Australasian Colonies, 10,706 in the United Kingdom, and 40 in other British possessions. Of 668 persons born in foreign countries who arrived during 1899, 113 were born in Austria, 144 in Germany, 98 in the United States, 101 in France, 46 in Italy, 16 in Sicily, 19 in Sweden, 8 in Norway, and 123 in other countries.

Among the arrivals in 1899 are noticed 123 "race-aliens," or persons of other than European descent. Particulars of birthplace and sex are as under:—

Birthplace.	M.	F.	Total.
United Kingdom	1	1	2
China	24	2	26
Syria	45	20	65
Pacific Islands	6	2	8
Fiji	4	1	5
India	13	1	14
Ceylon	2	0	2
Jamaica	1	0	1
Total	96	27	123

The practice of nominating immigrants to be brought out partly at the Government expense has been discontinued since the 16th December, 1890, and there was no free immigration in the year 1899.

Only 26 Chinese (24 men and 2 women) arrived in the colony during 1899, but 184 (all men) left, the departures thus exceeding the arrivals by 158.

The total departures in 1899, including 210 officers and men of the first contingent for service in South Africa, were 16,619 persons, being 460 more than in 1898. Thus, the movement of population to the colony is found to have been less, and from the colony to have been greater, than in the previous year.

In 1890 and in 1891 the colony lost population by excess of departures over arrivals, but in each of the years 1892 to 1899, inclusive, New Zealand has drawn to itself more population than it has parted with, notwithstanding the attractions of Australian and other goldfields.

The departures from the colony by the Union Steamship Company's boats, as given through the Customs Department, are checked by special returns kindly furnished by the pursers of the steamers, and, where persons who did not book their passages have been omitted, the necessary additions are made. The pursers' returns also serve to prevent the occasional omission of the full number of persons leaving by any one vessel, which sometimes had happened previous to the introduction of this check. Unless more passengers are at any time of great pressure taken away from New Zealand than can lawfully be carried, the returns of outgo of population should prove very fairly correct, and indeed the census of 1896 showed that the estimates of population even after five years' interval was a very close approximation to the truth.

Of the departures in 1899, 15,043 persons were over twelve years of age, and 1,576 children. Nearly twice as many males left the colony as females, the numbers being 10,567 and 6,052 respectively. The departures to the United Kingdom amounted to 1,324 persons, and those to Australia numbered 14,184. Besides these, 113 persons left for Fiji, and 998 for other ports (including passengers for San Francisco).

The arrivals and departures for ten years are given in the following tables, in which 1893 shows the highest number of persons inwards, 26,135, and 1894 of persons outwards, 22,984. In regard to Australia the movement was also greatest during the same years, the arrivals in 1893 being 22,351, and departures in 1894 20,488 persons:—

ARRIVALS, TEN YEARS.

Year.	From United Kingdom.	From Australian Colonies.	From Other Places.	Total Arrivals.
1890	2 812	11,539	677	15,028
1891	2,435	11,144	852	14,431
1892	2,555	14,674	893	18,122
1893	2,929	22,351	855	26,135
1894	2,846	21,291	1,100	25,237
1895	2,365	18,573	924	21,862
1896	1,956	14,125	1,155	17,236
1897	2,724	14,799	1,069	18,592
1898	2,598	14,969	1,288	18.855
1899	1,918	15,529	1,059	18,506
Totals, ten years	25,138	158,994	9,872	194,004

DEPARTURES, TEN YEARS.

Year.	To United Kingdom.	To Australian Colonies.	To Other Places.	Total Departures.
1890	1,863	13.862*	1,085*	16,810*
1891	1,705	15,016*	908*	17,629*
1892	1,612	10,669	883	13,164
1893	1,583	13,277	863	15,723
1894	1,669	20,488	827	22,984
1895	1,703	18,377	887	20,967
1896	1,578	13,208	978	15,764
1897	1,592	13,293	955	15,840
1898	1,199	13,619	1,341	16,159
1899	1,324	14,184	1,111	16,619
Totals, ten years	15,828	145,993	9,838	171,659

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* Figures given according to the returns, but short of actual fact, as proved by the census of 1891.

It will be found that the above figures give the total arrivals from the United Kingdom in ten years as 25,138 persons, and the departures as 15,828; and there is no reason to doubt the correctness of these results. The colony drew directly from the Mother-country 9,310 persons over and above those that went back directly during the ten-year period. For each year in the period the arrivals from the United Kingdom exceed the departures, but the excess was only 730 in the year 1891 and 594 in 1899. In regard to Australia, for each year given in the table, except 1890 and 1891, the balance of interchange is in favour of New Zealand. For this ten-year period there was a net gain amounting to 13,001 persons from Australia.

The interchange of people with places other than the United Kingdom and Australia has been very even during the ten years under review, the balance in favour of New Zealand amounting to 34 persons only.

The Board of Trade, London, publishes the total emigration from the United Kingdom to Australasia as a whole. By the figures given it will be seen that there was of late years an annual decrease in the number of persons coming to these colonies from the Home country until 1897, when the number somewhat increased. Prior to 1893 the arrivals from the United Kingdom ranged from 44,055 in 1886 down to 16,183 in 1892. Alongside of the Imperial returns of departures to Australasia are shown in the following statement the arrivals in New Zealand direct from the United Kingdom, taken from our own returns, which numbers are short of the full total of persons coming here from England by the arrivals *viâ* Australia or the United States of America. But, using the information available, it seems evident that New Zealand has been latterly preferred to Australia, from the high proportion which the arrivals here (direct) bear to every hundred of departures from England for the Australasian Colonies.

So long as New Zealand can secure one-sixth or more of the total persons leaving England for Australasia, she takes more than the proportion her population bears to that of the seven colonies collectively:—

Year.	Emigration from United Kingdom to Australasia.	Arrivals in New Zealand from United Kingdom.	Arrivals in New Zealand per 100 Departures for Australasia from United Kingdom.
1893	11,412	2,929	25·67
1894	11,151	2,846	25·52
1895	10,809	2,365	21·88
1896	10,710	1,956	18·26
1897	12,396	2,724	21·97
1898	11,020	2,598	23·58

A statement is added giving the arrivals and departures for each of the Australasian Colonies during the year 1899, and the result is shown to be a net gain to these colonies of 7,335 persons during the year:—

Colony.	Arrivals.			Departures.			Excess of Arrivals over Departures.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
New South Wales	92,104	50,969	143,073	90,401	50,422	140,823	1,703	547	2,250
Victoria (by sea only)	55,799	29,585	85,384	61,468	32,931	94,399	−5,669	−3,346	−9,015
Queensland ...	27,751	12,165	39,916	23,094	10,496	33,590	4,657	1,669	6,326
South Australia (including Northern Territory)	48,660	25,358	74,018	46,380	25,949	72,338	2,271	−591	1,680
Western Australia (by sea only)	13,142	7,136	20,278	14,029	6,196	20,225	−887	940	53
Tasmania ...	16,581	8,378	24,959	13,621	7,184	20,805	2,960	1,194	4,154
New Zealand ...	11,862	6,644	18,506	10,567	6,052	16,619	1,295	592	1,887

− Denotes loss.

NOTE.—In these figures allowance has been made for unrecorded departures.

THE CHINESE.

At the census of 1881, the year in which taxation was first imposed on Chinese landing in the colony, the Chinese population amounted to 5,004 persons, which fell to 4,542 in 1886, and further to 4,444 in 1891. In April, 1896, the census revealed a further fall to 3,711 persons. During the period 1881–96 the poll-tax was £10 per head, and this seemed sufficient for the purpose of preventing a large influx of the Chinese, except for the circumstance that, during the years 1894 and 1895, the arrivals shown by the Customs returns are found to have been somewhat greater than the departures. In 1896, the Chinese Immigrants Act Amendment Act of that year raised the poll-tax on Chinese immigrants to £100 per head, and limited the number of Chinese passengers that may be carried by vessels to this colony to one for every 200 tons burthen. In 1896 the amount paid by the Chinese as poll-tax was £1,270, in 1897 the sum was £240, in 1898 £400, and in 1899 £300. The number of Chinese in the colony at the end of the year 1899 is estimated to have been 3,263, of whom 33 were females.

Chinese immigration is under restraint in Australia as well as in New Zealand. In New South Wales the arrivals have been reduced until the number for 1896 was only 99, against 450 departures, by means of a similar poll-tax to that of New Zealand, and requirement that every vessel should not bring more than one Chinaman to every 300 tons. These conditions are helped by the law which forbids the naturalisation of a Chinese, and some prohibition as to mining without special authority. In 1887 no less than 1,798 Chinese paid poll-tax in New South Wales, and in 1896 the number was only 2.

Of the Chinese living in New Zealand in 1896, when the last census was taken, 3,685 were males and 26 females. Of the males, 88 were returned as married. The number of the Chinese under 14 years of age was only 14 males and 11 females. These numbers do not include the issue of unions between Chinese men and European women.

The occupations show 2,162 gold-miners, 527 market and other gardeners with 129 assistants, 94 greengrocers and 38 assistants, 94 shop- or store-keepers and 30 assistants, 59 labourers, 43 hotel servants; 31 vegetable, 27 general, and 25 fish hawkers; 31 laundrymen and women, 31 domestic servants, 29 lodginghouse keepers, 27 cooks (not domestic), 24 farm-labourers, 19 eating-house keepers, 19 grocers with 21 assistants, 16 fishermen, 11 merchants with 6 assistants, 7 drapers and 1 assistant. Amongst various others, in small numbers each, are returned 1 law-clerk, 2 missionaries, 5 medical men, 1 dentist, 1 chemist, 1 interpreter, 2 bankers, 1 opium-seller. Three of the Chinese were inmates of hospitals, and 3 others of benevolent asylums. While 22 were lunatics, only 2 were prisoners in gaol.

Particulars respecting the Population given in the Census of 1896.

The Year-book for 1898 states, in the form of extracts from the Census report, full information as to the density of population in New Zealand, the proportions of the sexes, the religions, birthplaces, ages, and occupations of the people. It is not considered necessary to reprint the figures, or the remarks which accompany them, as these will be found on pages 105 to 115 of the book for that year.

The Hollerith Electrical Machine.

A description of this machine, which is used in some countries for purposes of dealing with the cards by means of which census computations are now usually made, may be found interesting. The machine is not suited for a country like New Zealand, where the population is not very large, and where the combinations required are not of the most elaborate nature. It was tested in Victoria before the census of 1896 was compiled, and the Government decided against it on that occasion. The question was raised in this colony, whether greater speed could not be achieved by means of the machine, which has led to this explanation. It has been thus described in connection with the Canadian census of 1891:—

"In tabulating the returns, the Hollerith electrical tabulating-machine (which should, perhaps, rather be called a totalling-machine), introduced in the United States, was used. For this purpose, a card, similar in principle to that used in New Zealand, is devoted to each person; but, instead of drawing lines, a hole is punched in the centre of the compartment. Each card is then successively placed on a horizontal board. This board is pierced with holes, corresponding in number to the total number of compartments on the card, and so situated that each hole is under the centre of a compartment. Under each of these holes, again, is a tube partly filled with mercury, which communicates by means of a wire from the bottom of the tube with the index of a counter. Above the card is a second horizontal board, on the lower side of which are springs, terminating in blunted needles, these being so arranged as to dip into the tubes wherever there is a hole in the card, and thus complete an electric circuit wherever the needle meets the mercury. The electric current then moves the index of the counter through one division each time the board is lowered. By passing all the cards through the machine, the number of persons corresponding to each particular fact can be counted at once, and this number is then written on the tabulation-sheets. The machine is so arranged also as to permit of particular needles only reaching the mercury, and thus a combination of two or more particulars can be worked out by merely passing the cards through the machine. Two or three different combinations can be worked out simultaneously, provided that any one particular does not enter more than one of the combinations—*e.g.*, the religion according to education, and the infirmities according to age, could be worked out at the same time. It is, I believe, recognised that the device would not have been of so much value in the United Kingdom and the other colonies, where the number of details required is not so great. Owing to the time occupied in punching the cards as compared with that of ticking the compartments, the economy only begins to be appreciable when the combinations are very numerous."

SECTION II.—THE MAORIS: PROBABLE ORIGIN, AND PRESENT NUMBERS.

RESULT OF RESEARCHES AS TO ORIGIN.

THE following notes on this subject are supplied by Mr. S. Percy Smith, F.R.G.S.:—

In extension of the article under the head of "Maoris," given on page 4, *ante*, it may be stated that progress in the sciences of ethnology and philology has made some strides since those pages were first penned. Although an origin for the Maoris cannot be stated with certainty at present, it will serve a useful turn if some indication is given of the direction in which these researches, undertaken by several people, are tending. It is impossible in the brief space of a page or two to give the evidence on which the following is based; and, moreover, there are conflicts of detail which require further discussion, but the main outlines of the history of the Polynesians—of which race the Maori forms the most important section—can be given as a tentative theory.

It is obvious that the further back in point of time these researches are carried the more uncertain become the conclusions. But there is a point in the history of the race where their carefully treasured traditions become history. Comparison of the traditions preserved by various branches of the race all point to the West as their origin; and when we take up the direction thus indicated, and follow it out by the light shed on the subject by ethnology and philology, it will take us very far from the present home of the race.

It appears, then, from these indications, that the race once inhabited a mainland, which is believed to be India—inland India, the plains and foot-hills of the Himalaya, with their borders touching the sea on the Persian Gulf. Ages must have passed whilst the people dwelt in those parts; they became navigators, crossed the neighbouring seas, acquired many customs from some race of a Semitic origin, together with some words of their language. This neighbouring race was probably dwelling in Arabia and the shores of the Persian Gulf. But a time came when the Aryan race began to make its appearance in India, a race of superior mental calibre, and probably more numerous. Before this intruding race the ancient Polynesian gradually retreated; but not at once. There was a period when much intercourse took place between the two races, when they mutually borrowed words and customs, and probably intermarried. How long this intercourse lasted there is no means at present of saying; but, in the course of centuries, probably, the intrusive race gradually forced the Polynesians southwards and seaward, where they acquired increased powers of navigation and the knowledge of surrounding lands. Voyages were made far East, to Indonesia, where the Polynesians found in occupation a negrito race, which is connected with, if not the same as the Papuan.

Pressure from behind, as the Aryans increased in numbers, added to the knowledge of the east acquired by the Polynesians, now induced that people to remove in large numbers to Indonesia, where their superior physique and intelligence would soon render them the masters of the former inhabitants. The race as a whole, however, did not migrate, for there are strong reasons for thinking that some of the hill tribes of India represent those who remained. Along the shores of the many-isled Indonesia the people formed their homes; the very nature of this islet-dotted sea exciting their powers as navigators and rovers. It cannot yet be said how long the race remained in that part of the world, but it must have been counted by centuries. There is strong reason for thinking that their voyages extended far into the Pacific, and to the north.

Tradition begins now to take its part in the history of the race, and it is probable that the original names of Atea, Hawaiki-te-varinga, Vavau, Herangi, and many others must be looked for in these regions. But here comes in a difficulty in tracing these early names, due to the fact of the subsequent irruption of other races, who brought their own names with them, and applied them to those places already named by the Polynesians, which thus became lost, except where preserved in the traditions of the emigrants.

About the first and second centuries of the Christian era the Polynesians came into touch with another ethnic wave—the Malay race, from the west and north-west. Again were the same scenes enacted as in distant India. At first wars, then periods of peace, when an interchange of customs and language took place. After a time of considerable duration, the Polynesians again moved on, nearly always to the east. The pressure of the Malay race forced them onward. Expert navigators and daring sailors as they were, the unknown was to them an attraction rather than a deterrent. There is little doubt that their patriarchal form of government had existed from the most ancient times, and that they were organized in tribes, owing allegiance to their own Arikis or supreme chiefs. Thus some tribes, and those that felt the outward pressure most, started away from Indonesia independently of the others, carrying with them their tribal gods and tribal customs. It is probable that at this time, some one tribe or more, varying the route that they had hitherto taken, retraced their steps, and finally reached Madagascar, where their descendants, the Hovas, are still found. But this was not the general direction of the movement. The larger number proceeded to the *Hitinga* or sunrise. This was the first migration into the Pacific. Tracing them by their own histories, and by such lights as modern science throws on the darkness of the past, it appears probable that these early voyagers, coasting along Northern New Guinea, the Solomon, the New Hebrides, and Fiji Islands—islands already occupied by the Papuan and Melanesian races—finally reached Samoa, or Hawaiki, as all that group is still called by the eastern Polynesians, but under the form Hawaiki-raro, or Leeward Hawaiki, to distinguish it from Hawaiki-runga, or Windward Hawaiki, the Tahitian and neighbouring group. This first migration, no doubt, extended its voyages very far. The Menehune people of Tahiti, and of Hawaii, the first inhabitants of New Zealand (the same people as the Moriori of the Chatham Islands) and the first inhabitants of Marquesas perhaps formed part of it.

But the pressure of the Malay races became more and more pronounced as they increased in numbers, and shouldered those of the Polynesian race remaining in Indonesia. The traditions refer to this as a time of trouble and unrest. Many of the Polynesians left for new fields; others who remained were eventually, and to a considerable extent, forced to the mountains, where, it is believed, their remnant may be seen to this day in several of the islands of Indonesia. Those who came east followed the footsteps of their countrymen who had preceded them, until they reached the Fiji group. This later migration appears to have been composed of a more warlike and more capable people than the first—centuries of contact with the Malays had influenced them—for we can trace them all through their migrations as the conquerors, whether pitted against their own race or the Melanesian. In Fiji, they occupied the Lau, or eastern group, but held frequent communication with the other islands, to all of which they gave names, differing from those known to the Fijians of to-day. It is obvious they mixed in blood with the original Melanesians, and thus acquired that strain that may be recognised in some branches of the Polynesians to-day. Doubtless, the original Fijians, occupying as they did the most easterly outpost of Melanesia, were the most adventurous of that race, and the best navigators. It is probable for this reason, and for others now obscure, that the Polynesian, with his high idea of caste, and racial dislike of black people, condescended to mix with the Fijians, which there is reason for thinking he did not do, or only to a limited extent with other Melanesians, on the passage south past the Solomons, New Hebrides, &c.

During the occupation of Fiji, voyages were not infrequent to the neighbouring islands of Samoa and Tonga. This is apparent from both Samoan and Tongan histories. Here it is necessary to remark that a close study of the above traditions leads to the conclusion that when the Fijians are mentioned therein, it is the Polynesian immigrants that formed the later migration into the Pacific that are referred to, not the native Fijians.

A time, however, came in the history of the race when great troubles arose in Fiji; there was much fighting and general unrest—much voyaging to and fro to the neighbouring groups and to more distant ones. Eventually a combination of forces took place between the Fijian Polynesians and the Tongans of Vavau and Haapai, and a descent was made on Samoa. This group was practically conquered, and the Samoans driven to the mountains, whilst the invaders occupied the coasts. This occupation of Samoa covered some generations; and during this time—which was, roughly, about from the tenth to the twelfth century—these capable, warlike, Fiji-Polynesians, warriors and sailors, spread far and wide over the Pacific. These are the people who formed the southern and later migration to the Hawaiian Islands referred to by Fornander, and who, on their arrival in that group, soon acquired the leading position, which they have held down to the present day. The same thing occurred in other groups. They occupied Tahiti and the neighbouring islands, the Paumotu group, the Marquesas, Rarotonga, and, after some time, turned their faces south-westward and settled in New Zealand, where they arrived in a fleet of canoes in about the year 1350. These are the people who are generally termed Maoris, and who, on their arrival and after settling down in the land, by their masterful ways, greater intelligence, force of character, and probably superior physique, eventually became the conquerors of the people belonging to the prior migration into the Pacific, whom they found in occupation of these Islands.

These people were daring voyagers, in comparison with whom the most noted European navigators of the middle ages were mere coasters. The Polynesian chronicles relate voyages extending from Fiji to Easter Island, from New Zealand to the Hawaii group, and even to the antarctic regions. They were never equalled as voyagers until the sixteenth century, which saw such an extension of nautical enterprise, originating in Europe.

Present Numbers of the Maoris.

The census of the Maori population—that is, full-blooded Maoris, with all half-castes living as members of a Native tribe—was taken under the supervision of the officers of the Justice Department in the latter part of February, 1896. The enumeration of the Natives cannot be effected for one particular night, as is done with Europeans, and the instruction given to Enumerators was that the work should be done in as short a period of time as possible, beginning in the third week of February, and leaving the remainder of that month, and the month of March, for the work of examining, correcting, and completing the returns.

The names of the Natives were given in the Sub-Enumerators' books, besides information as to sex, age, principal tribe, sub-tribe, or hapu to which belonging, and particulars as to extent of cultivations owned individually or communally, with live stock.

Enumerators for the Maori census were directed to report on the general state of health of the Natives, and any other matters of interest relating to them.

The Enumerators for the northernmost counties reported fairly good health among the Natives, but that a habit of camping in low swampy places during the gum-digging season was injurious. Digging for kauri-gum is their principal occupation throughout the country north of Auckland.

In the country over which the Maori "King," Mahutu, has influence, Sub-Enumerators experienced great difficulties, being told that the "King" had already taken a census, and no other was required. The Maoris also seemed to connect the census with taxation, and objected to it on those grounds.

The Sub-Enumerators for Waikato, Kawhia, and Thames Counties reported very little sickness. In Counties Tauranga, Whakatane, Rotorua, and Taupo (East and West) no unusual sickness was found.

The Natives round Tauranga are stated to be more industrious than formerly, and taking to agricultural pursuits.

In the Counties of Cook and Waiapu the Maoris were stated to be in very good health, and, as a rule, comfortably off; most of the young and middle-aged were working at bush-falling, shearing, &c., and making good wages.

For Counties Wairoa and Hawke's Bay the accounts were not so good. In parts there had been fever of a typhoid character. Paucity of children and old people was observed by several Sub-Enumerators.

Around New Plymouth there had been no sickness. The same was reported for Hutt County.

In the Middle Island, where the Native population is only a little over two thousand people, the reports speak of satisfactory health, and, for parts in respect of which comment is made, of a sufficiently prosperous condition.

Although the above leads to the conclusion that the Maoris were fairly thriving at the time of the census, there is reference in some of the reports to epidemics sweeping away numbers of the people during the five years 1891–96; and the actual results of the census indicate either (1) a decrease of population, or (2) that at the enumeration of 1891 some Natives must have been counted more than once, and where names had not been given, the number returned was greater than the reality. The comparison of the figures is as under:—

MAORIS (INCLUDING HALF-CASTES LIVING AS MEMBERS OF MAORI TRIBES).

	Persons.	Males.	Females.
April, 1891	41,993	22,861	19,132
April, 1896	39,854	21,673	18,181
Apparent decrease in five years ..	2,139	1,188	951

The numbers for the different counties cannot be compared for the two census years to much purpose, because of the movements of the Maoris during the quinquennium, but the Enumerator for Waikato distrusts the degree of decrease shown for his whole large district, though of the belief that there has been a decrease to a lesser extent. He considers that more Maoris are working for Europeans than formerly, and these are liable to be missed. Probably at next census the schedule left at the dwellings of Europeans should have a slip attached on which might be taken particulars relating to Maoris working on their farms, and not living in the kainga Maori.

In February, 1896, the numbers of Maoris on the principal islands of New Zealand was as shown on the next page:—

	Maoris.			Half-castes living as Members of Maori Tribes (included in the preceding Numbers).		
	Persons.	Males.	Females.	Persons.	Males.	Females.
North Island	37,102	20,343	16,759	2,477	1,395	1,082
Middle Island	2,207	1,166	1,041	895	485	410
Stewart Island ..	117	59	58	104	49	55
Chatham Islands—						
Maoris	179	94	85	27	15	12
Morioris	20	11	9	..	..	..
Maori wives living with European husbands ..	229	..	229	..	..	..
Totals ..	39,854	21,673	18,181	3,503	1,944	1,559

Besides the half-castes included in the above table, there were 2,259 half-castes (males, 1,123 ; females, 1,136) living with and enumerated as Europeans at the time of the census.

In these numbers will be noticed 20 of the old aboriginals, termed Morioris, at the Chatham Islands, and 229 Maori wives of European husbands. These Native wives of Europeans numbered 251 at the census of 1891, and 40 Morioris were then enumerated.

HALF-CASTES.

The half-caste population consists of those who live as members of Maori tribes, and others living with and counted as Europeans in the census. Adding the numbers of the two kinds gives the following figures for three censuses:—

Census.	Half-castes living as Members of Maori Tribes. Persons.	Half-castes living as Europeans. Persons.	Total Half-caste Population. Persons.
1881	2,254	1,958	4,212
1891	2,681	2,184	4,865
1896	3,503	2,259	5,762

These numbers indicate an increasing population of half-castes, notwithstanding the apparent decrease of the Maori population, before alluded to as probably in part correct.

PROPORTIONS OF DIFFERENT AGE-GROUPS.

It has been stated that the decrease shown by the census of 1896 in the Maori population can scarcely be considered a certainty to the full degree exhibited. It remains to see if consideration of the proportions of the people under and over fifteen years tends to confirm the conclusion. The proportions are accordingly given for six successive census years:—

PROPORTIONS PER 100 PERSONS LIVING—MAORIS.

	Males.		Females.	
	Under 15 Years.	Over 15 Years.	Under 15 Years.	Over 15 Years.
1896 ..	35·28	64·72	36·82	63·18
1891 ..	33·22	66·78	35·22	64·78
1886 ..	31·64	68·36	33·56	66·44
1881 ..	33·65	66·35	34·64	65·36
1878 ..	32·00	68·00	31·63	68·37
1874 ..	35·16	64·84	36·39	63·61

The figures here, taken over the full range of years, would seem to indicate almost unchanged conditions. The proportions per cent. under 15 years of the young people of either sex are somewhat different from those found in the European population—viz.: Males under 15, 34·81; over 15, 65·19; and females under 15, 38·01; and over 15 years, 61·99. But there is nothing to indicate decrease of numbers.

Dividing the whole Maori population into ten age-periods, the proportions per 100 living of each sex at these ages are next compared with those of the European population. The proportions for persons under 5 years for the two races are very nearly the same.

Ages.	New Zealand European Population, 1896.		Maori Population, 1896.	
	Males.	Females.	Males.	Females.
Under 5 years	11·45	12·42	10·88	11·86
5 and under 10 years ..	11·75	12·80	14·43	15·02
10 " 15 " ..	11·61	12·79	9·73	9·59
15 " 20 " ..	10·88	12·17	10·29	11·90
20 " 30 " ..	17·49	19·13	17·94	18·80
30 " 40 " ..	12·47	11·92	13·22	12·71
40 " 50 " ..	9·93	8·32	10·28	9·19
50 " 60 " ..	8·21	6·07	7·50	6·30
60 " 70 " ..	4·86	3·25	3·82	3·08
70 and upwards ..	1·35	1·13	1·91	1·55
	100·00	100·00	100·00	100·00

DISTRIBUTION OF THE MAORI POPULATION.

The localization of the Maoris is shown by the numbers found to be living in the several counties, as under:—

Counties.	Persons.	Counties.	Persons.	Counties.	Persons.
Mongonui ..	1,616	Rotorua ..	1,047	Hutt	256
Whangaroa ..	656	Tauranga ..	1,099	Sounds.. ..	139
Hokianga ..	1,839	Whakatane ..	3,524	Marlborough ..	167
Bay of Islands ..	2,509	Waiapu ..	2,393	Kaikoura ..	77
Hobson ..	1,011	Cook ..	1,402	Collingwood ..	32
Whangarei ..	606	Clifton ..	368	Waimea ..	98
Otamatea ..	264	Taranaki ..	1,069	Buller ..	26
Rodney ..	193	Stratford ..	226	Westland ..	82
Waitemata ..	260	Hawera ..	816	Ashley ..	165
Eden	177	Patea ..	280	Selwyn ..	62
Great Barrier Island	60	Waitotara ..	293	Akaroa ..	238
Waiheke Island	58	Wanganui ..	1,133	Levels ..	141
Manukau ..	676	Rangitikei ..	411	Waimate ..	74
Coromandel ..	638	Oroua ..	307	Waitaki ..	180
Thames ..	1,010	Manawatu ..	149	Waikouaiti ..	168
Ohinemuri ..	483	Horowhenua ..	886	Peninsula ..	71
Piako	291	Wairoa ..	1,766	Taieri ..	61
Waikato ..	324	Hawke's Bay ..	1,326	Clutha ..	24
Waipa	294	Waipawa ..	325	Bruce ..	20
Raglan.. ..	1,269	Patangata ..	170	Southland ..	121
Kawhia ..	1,444	Pahiatua ..	30	Wallace ..	261
West Taupo ..	961	Wairarapa North	319	Stewart Island ..	117
East Taupo ..	519	Wairarapa South	349	Chatham Islands	199

229 Maori wives of European husbands have not been included in these figures.

SECTION III.—VITAL STATISTICS.

BIRTHS.

THE number of births registered in the colony during 1899 was 18,835, or 25·12 in every 1,000 persons living. The rate is lower than that for the preceding year, and indeed since the year 1881 there has been a steady decline. The number of births registered in a year reached its maximum in 1884, when it stood at 19,846, after which it fell to 17,876 in 1892, rising year by year to 18,955 in 1898, but falling again in 1899 to 18,835, as stated above.

The position still remains, that the increase in the number of marriages solemnised of late years has not as yet had any considerable effect in raising the number of births, and the birth-rate for last year (1899) is the lowest so far recorded in the statistics of the colony.

The figures for each year are worthy of notice, especially in connection with the subsequent particulars given as to marriages solemnised and the growth of population :—

Year.	Number of Births.	Rate per 1,000 of Population.	Year.	Number of Births.	Rate per 1,000 of Population
1882	19,009	37·32	1891	18,273	29·01
1883	19,202	36·28	1892	17,876	27·83
1884	19,846	35·91	1893	18,187	27·50
1885	19,693	34·35	1894	18,528	27·28
1886	19,299	33·15	1895	18,546	26·78
1887	19,135	32·09	1896	18,612	26·33
1888	18,902	31·22	1897	18,737	25·96
1889	18,457	30·07	1898	18,955	25·74
1890	18,278	29·44	1899	18,835	25·12

While this process of a diminishing birth-rate* has been going on the marriages have been increasing numerically, and the population of the colony also (facts which, taken together, lead to the conclusion that child-bearing is to a certain extent avoided) :—

Year.	Number of Marriages.	Mean Population (excluding Maoris).	Year.	Number of Marriages.	Mean Population (excluding Maoris).
1881	3,277	493,482	1891	3,805	629,783
1882	3,600	509,309	1892	4,002	642,245
1883	3,612	529,292	1893	4,115	661,349
1884	3,800	552,590	1894	4,178	679,196
1885	3,813	573,362	1895	4,110	692,417
1886	3,488	582,117	1896	4,843	706,846
1887	3,563	596,374	1897	4,928	721,609
1888	3,617	605,371	1898	5,091	736,260
1889	3,632	612,716	1899	5,461	749,984
1890	3,797	620,780			

In the year 1881 there were in New Zealand 5·72 births to every marriage in the previous year, and in 1899 the proportion had fallen to 3·46 births to each marriage.

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* In respect of Australian birth-rates, see remarks from Mr. Coghlan's pamphl quoted at the end of this section.

In the Australian Colonies a similar decrease is noticeable. It has been remarked that in all the Australian Colonies the average number of children to a marriage tends to decrease. In Victoria the number for the year 1880 was 4·99, but fell to 4·05 in 1898. In New South Wales the figures are 5·0 and 4·11 for the same years respectively.

New Zealand had in 1880 the highest birth-rate of all the Australasian Colonies (40·78), but now the case is reversed.

The fall over ten years is calculated as under:—

BIRTH-RATES PER 1,000 OF POPULATION.

Colony.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Queensland	37·15	36·35	35·84	33·73	31·86	32·85	30·06	29·92	28·28	27·31
New South Wales ..	35·36	34·50	33·89	33·33	31·48	30·66	28·35	28·42	27·14	27·10
Victoria	33·60	33·57	32·54	31·23	29·16	28·56	27·33	26·59	25·72	26·71
South Australia ..	33·25	33·92	32·41	31·76	30·49	30·23	28·46	26·97	24·98	25·51
Western Australia .	34·85	35·63	33·09	34·22	28·27	26·30	22·65	25·82	29·35	30·64
Tasmania	33·49	33·37	32·47	33·92	31·11	30·09	28·16	27·73	26·24	25·98
New Zealand	29·44	29·01	27·83	27·50	27·28	26·78	26·33	25·96	25·74	25·12

With a falling birth-rate, the census taken in 1896 showed lower numbers of each sex living at the period under five years than at the next quinquennial period, which is unsatisfactory, indicating as it does that there are not now sufficient living at the earlier years to maintain the number of those of five years and under ten now found in the tables. The census thus demonstrates the general correctness of the birth-rates, and shows that the results of the statistics are fairly accurate.

A declining birth-rate is noticeable in many civilised countries, and attention has been drawn to the serious consequences that may result by statisticians and political economists. That the fertility of women in New Zealand is decreasing further facts will tend to show.

Taking the number of married women in New Zealand at what may be considered the child-bearing ages (*i.e.*, from fifteen to forty-five years, inclusive) as shown by each census since 1878, and for the same years the number of legitimate births (excluding plural) registered, the birth-rate per 1,000 married women of the above-stated ages is easily found, and is shown to be steadily declining. In 1878 the rate was 337 per 1,000, and in 1896 it had fallen to 252 or, in other words, in 1878 one married woman of the ages specified in every three gave birth to a child, while in 1896 the rate was 1 in 4 only. The figures for each census year are given below, and are followed by a table showing the declining birth-rate, and the increase in the marriage-rate, in the United Kingdom.

BIRTH RATES (LEGITIMATE) PER 1,000 MARRIED WOMEN AT CHILD BEARING AGES FOR EACH CENSUS YEAR, 1878 TO 1896.

Year (Census).	Number of Married Women between 15 and 45 Years of Age.	Number of Legitimate Births (Confinements).	Birth-rate per 1,000 Married Women of from 15 to 45 Years of Age.
1878	50,995	17,196	337·2
1881	57,458	18,003	313·3
1886	62,704	18,532	295·5
1891	63,165	17,455	276·3
1896	69,807	17,596	252·1

BIRTH AND MARRIAGE RATES IN THE UNITED KINGDOM, 1886, 1891, 1896, AND 1898.

Year.	Mean Population.	Births.		Marriages.	
		Number.	Rate per 1,000 of Population.	Number.	Rate per 1,000 of Population.
1886 ..	36,313,582	1,145,683	31·55	241,180	6·64
1891 ..	37,796,390	1,148,259	30·38	275,970	7·30
1896 ..	39,464,582	1,152,122	29·19	296,089	7·50
1898 ..	40,190,806	1,159,192	28·84	309,491	7·70

The above figures are taken from the "Statistical Abstract for the United Kingdom, 1884 to 1898" (forty-sixth number), published in August, 1899.

From the year 1895 marriages have shown an increase, the rate being then 5·94 per 1,000 of population. In 1899 the rate rose to 7·28, the highest record since 1879, when it was 7·48 per 1,000 of mean population. The number of marriages solemnised in 1899 was 5,461, an increase of 370 on the number for 1898.

MARRIAGE RATES IN AUSTRALASIAN COLONIES PER 1,000 OF POPULATION.

	1874.	1886.	1891.	1896.	1898.	1899.
Queensland	8·62	8·67	7·18	6·05	6·03	6·78
New South Wales ..	7·70	7·99	7·39	6·59	6·66	6·89
Victoria	6·33	7·84	7·69	6·48	6·53	..
South Australia ..	8·00	6·24	7·31	6·20	6·18	6·16
Western Australia ..	6·96	7·98	8·00	8·45	9·89	9·89
Tasmania	6·83	7·26	6·63	5·88	6·29	6·37
New Zealand	8·81	5·99	6·04	6·85	6·91	7·28

In April, 1891, New Zealand had 83,204 children living under the age of 5 years, and in 1896 the number was 83,659, an increase of only 455, although the population at all ages increased in the quinquennium by 12·24 per cent. Between 1886 and 1891 the children living under 5 years actually decreased in number by 3,624, the increase of population of all ages (8·33 per cent.) being less than between 1891 and 1896 (12·24 per cent.). The number of children under one year to the total population at all ages, according to the results of three censuses, was :—

	Children under One Year.	Total Population (all Ages).
Census, 1886	18,355	578,482
" 1891	16,443	626,658
" 1896	17,070	703,360

Thus, in 1886, with a population of 578,482 persons, there were 18,355 children under one year, against 17,070 children of that age in 1896, with a population of 703,360 persons.

The births registered in 1885 were 19,693, against 18,546 in 1895, and the birth-rate fell from 34·35 per 1,000 of the population in the former year to 26·78 in the latter.

Deducting 1,637, the number of deaths of children under one year registered in 1895, from 18,546, the number of births for that year, leaves 16,909, or within 161 of the living children under one year at the time of the last census.

TWIN BIRTHS.

There were 176 cases of twin births (352 children), and triplets were registered in one instance, in 1899. The number of children born was 18,835; the number of mothers was 18,657: thus on an average one mother in every 106 gave birth to twins, against 97 in 1898, and 101 in each of the years 1897 and 1896. In 1895 the proportion was one in 93, and in 1894 one in 103.

ILLEGITIMACY.

The births of 829 children were illegitimate: thus 44 in every 1,000 children born were born out of wedlock, against 42 in 1898.

The following table gives the rates of illegitimacy in each of the Australasian Colonies. The rate in New Zealand is less than in any other of the Australasian Colonies except South Australia:—

PROPORTION OF ILLEGITIMATE BIRTHS IN EVERY 100 BIRTHS.

Year.	Queensland.	New South Wales.	Victoria.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1890	4·85	5·26	5·09	2·50	..	4·05	3·30
1891	4·65	5·36	5·36	2·93	..	3·72	3·49
1892	5·05	5·71	5·59	2·93	5·89	4·75	3·32
1893	4·97	6·16	5·46	2·84	4·17	4·41	3·70
1894	4·52	6·14	5·50	3·05	4·66	5·09	3·80
1895	4·93	6·51	5·33	3·13	4·47	4·97	4·50
1896	5·22	5·71	5·63	3·45	5·61	5·91	4·48
1897	6·02	6·58	5·42	3·53	5·27	5·74	4·41
1898	6·04	6·93	5·29	3·62	4·99	5·09	4·23
1899	5·97	7·15	..	3·95	4·91	6·08	4·40

These figures show a rise in the proportion of illegitimate births to every 100 births for this colony, amounting to 1·10 for the period 1890–99.

The fall in the actual number of all births in New Zealand must not be forgotten when considering the increase in the number of illegitimates. The total number of births registered fell from 19,299 in 1886 to 18,612 in 1896, while the illegitimate births rose from 602 to 834. The causes that led to the fall in the birth-rate certainly did not greatly affect the number of illegitimate children.

ILLEGITIMATE BIRTHS, 1886 AND 1896.

	Proportion Illegitimate in every 100 Births.		Total Number of all Births.		Number of Illegitimate Births.	
	1886.	1896.	1886.	1896.	1886.	1896.
The whole Colony ..	3·12	4·48	19,299	18,612	602	834
Auckland and suburbs	4·34	7·23	2,376	1,922	103	139
Wellington and suburbs	4·70	8·05	1,341	1,342	63	108
Christchurch and suburbs	4·70	7·71	1,872	1,519	88	117
Dunedin and suburbs	5·55	7·84	1,585	1,173	88	92

The number of spinsters in the colony between 15 and 45 increased during the ten years from 52,348 (census 1886) to 85,105 (census 1896), or at the rate of 62·6 per cent., while the illegitimate births increased from 602 to 834, or at the rate of 38·5 only.

It would therefore appear that the larger proportion of illegitimate births now obtaining cannot with any certainty be taken as indicative of increased looseness of living on the part of the people.

The following figures, taken from "The Wealth and Progress of New South Wales, 1897–98," showing the rate of illegitimacy per 100 births in the Australasian Colonies and in the United Kingdom, are based on statistics for a period of five years:—

Country.	Illegitimate Births per Cent.	Country.	Illegitimate Births per Cent.
New South Wales ..	6·45	Tasmania	5·20
Victoria	5·47	New Zealand	4·18
Queensland	5·13	England and Wales ..	4·24
South Australia ..	5·92	Ireland	2·63
Western Australia ..	4·92	Scotland	7·29

Of the total number of children born in Australasia during the five years ended 1897, 5·54 per cent. were illegitimate, as compared with 4·43 per cent. in the United Kingdom for the period 1892–96.

The figures in the next table, which give the percentages of illegitimate births in a number of foreign countries, also cover a period of five years, 1890–94.

Country	Illegitimate Births per Cent.	Country.	Illegitimate Births per Cent.
Germany	9·08	France	8·65
Prussia	7·66	Belgium	8·81
Bavaria	14·09	Netherlands	3·16
Saxony	12·33	Sweden	10·35
Austria	14·66	Norway	7·09
Hungary	9·11	Italy	7·01

For England and Wales the proportion of illegitimate births to the total births in 1898 was 4·2 per cent., having gradually diminished from 7 per cent. in 1845. The minimum rate was 2·9 per cent., in Essex, and the maximum 7·8 per cent., in Herefordshire. For London the percentage was 3·7 in 1897.

The average proportion of illegitimate births in Scotland in 1897 was 7·0 per cent., the rate varying from 3·5 per cent., in Dumbartonshire, to 14·1 in Wigtownshire; but in Ireland in that year the extremely low average of 2·6 per cent. obtained, the rate varying from 0·7 in Connaught to 3·6 in Ulster.

The following figures, which represent the number of illegitimate births that have occurred in the maternity homes maintained at Christchurch and Auckland by the Salvation Army since their commencement, have been supplied by the chief officer of that organization:—

Christchurch.

1892–95	63
1896	29
1897	24
1898	22
1899	23
Total	161

Auckland.

1898	19
1899	25
Total	44

The Legitimation Act.

An important Act was passed in 1894, entitled the Legitimation Act, which makes provision for the legitimation of children born before marriage on the subsequent marriage of their parents. Under this Act any child born out of wedlock, whose parents afterwards marry, is deemed to be legitimised by such marriage on the birth being registered in the manner prescribed by the Act. For legitimation purposes Registrars must register a birth when called upon to do so by any person claiming to be the father of an illegitimate child; but such person is required to make a solemn declaration that he is the father, and that at the time of the birth there existed no legal impediment to his marriage with the mother of the child. He has also to produce the evidence of his marriage. It will thus be seen that in cases dealt with under the Act registration becomes the test of legitimacy. In the December quarter of 1894, 11 children were legitimised; in 1895 the number was 68; in 1896, 56; in 1897, 48; in 1898, 59; and in 1899, 41; making altogether 283 legitimations since the passing of the law.

"The Infant Life Protection Act, 1896."

By this statute it has been rendered unlawful for a person to take charge, for payment, of an infant to maintain or nurse for more than three days without holding license as an infants' home keeper. The house of such a person must be registered as an infants' home.

The administration of this law is a matter entirely managed by the police, and the Commissioner reports the working to be satisfactory after a two years' experience. The licensed homes are periodically inspected by the police authorities, and the results have shown that licensees generally comply with the required conditions, the homes and infants being well looked after.

The Commissioner adds: "During the year 1898 there were 553 licensed homes throughout the colony, representing 829 infants. Twenty-seven deaths occurred in the licensed homes during the year, an inquest being held in each case, but in no instance was wilful neglect or other misconduct on the part of the licensee disclosed. The mortality in the homes was equal to 32·57 per thousand. The mortality throughout the colony of infants under four years of age—the age to which the Act applies—for the year was 26·92. Considering that a large majority of these infants are illegitimate, and are the offspring of very young mothers; that they have struggled into existence against tremendous odds, their advent being naturally regarded as a curse; that when received into the homes they are, with few exceptions, what may be termed 'rickety' infants; that they are all deprived of their natural food (their mother's milk) and have to be reared artificially, I think the mortality compares favourably with that of infants of corresponding age throughout the colony. During the year twenty-four licensees were prosecuted for offences under the Act, sixteen of whom were convicted, and three licenses were cancelled."

BIRTHS AND BIRTH-RATES IN THE FOUR CHIEF CITIES.

The total number of births registered as occurring in the four chief centres and suburbs in 1899 was 4,563, as against 4,629 for the previous year.

The births in the four cities fell from 2,878 in 1898 to 2,854 in 1899, and in the suburban boroughs from 1,751 to 1,709. The birth-rates for 1899 were,—

	Birth-rates per 1,000 of Mean Population.	
Auckland City	25·77	
" and five suburban boroughs		25·30
Wellington City	24·24	
" and three suburban boroughs		24·97
Christchurch City	18·74	
" and four suburban boroughs		22·05
Dunedin City	20·82	
and eight suburban boroughs		21·55

Thus, by the inclusion of the suburbs the rate is raised at Wellington, Christchurch, and Dunedin, but lowered at Auckland. It will be observed that Auckland has the highest rate, Wellington next highest, Christchurch and Dunedin following with intervals. The difference between the Auckland rate (25·30) and the Dunedin rate (21·55) is considerable. The birth-rate for the whole colony for 1899 was 25·12 per thousand. Auckland is thus over the average, Wellington, Christchurch, and Dunedin below it.

Taking the births in the four central boroughs without their suburbs, and comparing the numbers for 1899 and 1898, an increase is observed at Auckland of 72; a decrease at Christchurch of 50, at Wellington of 29, and at Dunedin of 17. The figures for the last five years are :—

	1895.	1896.	1897.	1898.	1899.
Auckland (without suburbs)	888	892	906	916	988
Wellington „	1,000	1,005	1,067	1,065	1,036
Christchurch „	359	370	376	390	340
Dunedin „	475	498	498	507	490

The birth-rates for the four central boroughs in 1899 show in each case a fall when compared with 1898. In Auckland the rate fell from 26·96 to 25·77; in Wellington, from 25·75 to 24·24; in Christchurch, from 22·07 to 18·74; and in Dunedin, from 21·61 to 20·82. The rates for five years, 1895 to 1899, are as follows :—

	Births per 1,000 of Population.				
	1895.	1896.	1897	1898.	1899.
Auckland (without suburbs)	28·04	28·39	28·29	26·96	25·77
Wellington „	28·30	26·84	27·71	25·75	24·24
Christchurch „	20·36	21·81	21·88	22·07	18·74
Dunedin „	19·87	21·83	21·54	21·61	20·82

NATURALISATION.

Aliens residing in the colony may, on taking the oath of allegiance to Her Majesty, obtain letters of naturalisation entitling them to enjoy all the rights and privileges that a natural-born subject of the United Kingdom can enjoy or transmit within this colony. Six hundred and seventy-four aliens (614 men and 60 women) were naturalised in 1899. The abnormal increase on the number naturalised in 1898 is, no doubt, due to the fact that a general election was held in 1899.

The number belonging to each nationality was as under :—

NUMBER OF ALIENS NATURALISED IN 1899.

Natives of—	M.	F.	Natives of—	M.	F.
German Empire	168	22	United States of America	17	1
Norway and Sweden	138	8	Netherlands	8	0
Denmark	104	15	Greece	7	0
Russia, Poland, and Finland	21	0	Switzerland	20	2
France and possessions	22	5	Belgium	8	0
Italy and Sicily	25	2	Portugal and possessions	11	0
Austria-Hungary	54	5	Turkey and Syria	6	0
China	4	0	Brazil	1	0

The number of natives of each country naturalised during the last eighteen years is next shown,—

Natives of—		Natives of—	
Germany	1,312	France	93
Sweden and Norway	953	Netherlands	41
Denmark	698	Greece	35
China	340	Portugal	31
Italy and Sicily	161	United States of America	37
Switzerland	149	Belgium	22
Russia	160	Other countries	74
Austria	181	Total	4,287

By section 2 of "The Aliens Act Amendment Act, 1882," repealed and re-enacted by section 2 of "The Aliens Act Amendment Act, 1892," it is provided that when the father, or mother being a widow, has obtained naturalisation in the colony, every child who during infancy has become resident with them in New Zealand shall be deemed to be naturalised, and shall have the rights and privileges of a natural-born subject.

Marriages.

The marriages for 1899 show an increase on the number for the previous year. The number was 5,461, or 370 more than in 1898. The marriage-rate rose from 6·91 per 1,000 persons living in 1898 to 7·28 in 1899, the rate for the latter year being the highest obtained since 1879, when it stood at 7·48 per 1,000 persons. The improvement shown during the last four years sets New Zealand in a good position relatively to the colonies in Australia.

The rates for a series of twelve consecutive years were :—

Marriages per 1,000 of the Population.

Year.	Queensland.	New South Wales.	Victoria.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1888 ..	8·63	7·37	8·03	6·70	7·18	6·58	5·97
1889 ..	8·37	6·76	8·14	6·47	6·99	6·50	5·94
1890 ..	8·49	7·14	8·21	7·06	5·80	6·64	6·12
1891 ..	7·18	7·39	7·69	7·31	8·00	6·63	6·04
1892 ..	6·67	6·77	6·64	6·51	7·29	6·51	6·23
1893 ..	5·91	6·40	5·99	6·26	6·34	5·51	6·22
1894 ..	5·70	6·20	5·98	6·09	6·24	5·43	6·15
1895 ..	6·23	6·35	6·00	5·88	6·83	5·32	5·94
1896 ..	6·05	6·59	6·48	6·20	8·45	5·88	6·85
1897 ..	6·05	6·72	6·36	5·46	10·73	6·23	6·83
1898 ..	6·03	6·66	6·53	6·18	9·89	6·29	6·91
1899 ..	6·78	6·89	..	6·16	9·89	6·37	7·28

But the improved rate for this colony is still lower than the rate for many European countries.

Marriages in every 1,000 of the Population.

German Empire	1896	8·3
Belgium	1896	8·1
Hungary	1896	8·1
England and Wales	1896	7·9
Austria	1896	7·9
Switzerland	1896	7·8
Spain	1894	7·8
France	1896	7·5
Netherlands	1896	7·5
Denmark	1896	7·3
Scotland	1896	7·2
Italy	1896	7·1
Norway	1896	6·7
Sweden	1895	5·9
Ireland	1896	5·0

Of the marriages solemnised in 1899, 4,905 were between bachelors and spinsters, 184 between bachelors and widows, 252 between widowers and spinsters, and 120 between widowers and widows. Divorced men and women have been classified as bachelors or spinsters : 9 divorced men and 14 divorced women were married during the year.

Included amongst spinsters are thirteen married women, and amongst the bachelors two married men, who elected to go through the form of marriage with other persons under the protection of the provisions of section 204, subsection (5), of "The Criminal Code Act, 1893," which runs: "No one commits bigamy by going through a form of marriage if he or she has been continually absent from his or her wife or husband for seven years then last past, and is not proved to have known that his wife or her husband was alive at any time during those seven years."

The total number of marriages solemnized (5,461) does not include marriages where both parties are of the aboriginal native race; such persons being exempted from the necessity of complying with the provisions of the Marriage Act, although at liberty to take advantage thereof. Twenty-seven marriages in which both parties were Maoris were contracted in 1899 in terms of the Act: 17 by Registrars, 8 by clergymen of the Church of England, 1 by a Wesleyan, and 1 by a Presbyterian Minister.

BACHELORS AND SPINSTERS IN NEW ZEALAND.

The results of the last three censuses in respect of the number of bachelors of 20 years and upwards, and spinsters of 15 years and upwards, in the colony show some interesting features. While in 1886 there was an excess of bachelors over the spinsters amounting to 12,339 men, in 1891 the census gave an excess of 3,497 only, showing that a process of equalisation had been going on. But by 1896 not only had the preponderance of the male element been lost, but an excess of spinsters over bachelors was reported amounting to 1,786 women.

It is curious to notice how differently the numbers for the Provincial Districts have been affected by the process in operation. An excess of bachelors was preserved in Auckland, Taranaki, Hawke's Bay, Wellington, Marlborough, Nelson, and Westland from 1886 to 1896, but in all these cases except Taranaki it diminished very much. In Canterbury, however, an excess of spinsters was found in 1886 of 910, which increased to 2,516 in 1891, and to 3,997 in 1896; while in Otago an excess of 2,359 bachelors in 1886 changed to an excess of 773 spinsters in 1891, which increased to 2,066 in 1896: these two important districts of the Middle Island losing large numbers of bachelors by departures to the North Island.

The following table exhibits the excess of bachelors over spinsters or of spinsters over bachelors in each provincial district in 1886, 1891, and 1896:—

Provincial Districts.	Census, 1886.		Census, 1891.		Census, 1896.	
	Excess of Bachelors over Spinsters.	Excess of Spinsters over Bachelors.	Excess of Bachelors over Spinsters.	Excess of Spinsters over Bachelors.	Excess of Bachelors over Spinsters.	Excess of Spinsters over Bachelors.
Total excess ..	12,339	..	3,497	..	..	1,786
Auckland ..	2,996	..	156	..	703	..
Taranaki ..	242	..	121	..	524	..
Hawke's Bay ..	1,809	..	1,337	..	1,142	..
Wellington ..	2,225	..	2,129	..	637	..
Marlborough ..	607	..	644	..	183	..
Nelson	1,524	..	1,486	..	580	..
Westland ..	1,479	..	900	..	501	..
Canterbury ..	..	910	..	2,516	..	3,997
Otago	2,359	..	..	773	..	2,066
Chatham Islands	8	..	15	..	7	..
Kermadec Islands	..	..	..	2	..	..

MARRIAGES BY MINISTERS OF VARIOUS DENOMINATIONS.

Of the marriages in the year 1899, 24·17 per cent. were solemnised by ministers of the Church of England, 25·30 per cent. by ministers of the Presbyterian Churches, 12·91 per cent. by ministers of the Wesleyan and other Methodist Churches, 10·87 per cent. by ministers of the Roman Catholic Church, 9·34 per cent. by ministers of other denominations, and 17·41 per cent. by Registrars.

The following shows the proportions of marriages by ministers of the principal denominations in the past eight years, and the percentages of these denominations to the total population :—

Denomination.	Percentage of Marriages.								Percentage of Denomination to Total Population in 1896.
	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	
Church of England	20·78	23·06	22·86	22·74	22·86	23·00	23·37	24·17	40·27
Presbyterians ..	29·38	26·58	25·30	24·32	25·01	25·44	26·02	25·30	22·78
Wesleyans and other Methodists	14·82	16·13	15·99	15·69	17·92	17·61	13·98	12 91	10·45
Roman Catholics ..	9·74	8·99	10·08	11·19	10·26	10·12	10·37	10·87	14·07
Other denominations	6·34	6·66	6·65	7·29	6·05	5·86	9·25	9·34	12·43
By Registrars ..	18·94	18·58	19·12	18·77	17·90	17·97	17·01	17·41	..
	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00

Marriage by the Registrar is found to be rather less frequent than it was seven years ago, the percentage falling from 18·94 in 1892 to 17·41 in 1899.

MARRIAGE REGISTER SIGNED BY MARK.

Of the men married in 1899, 24, or 4·39 in every 1,000, and of the women 35, or 6·41 per 1,000, signed the register by marks.

The illiteracy of the people, as measured by the proportion of married persons who affix marks instead of signatures to the marriage register, has greatly decreased of late, having fallen since 1881 from 32·04 per 1,000 among men to 4·39 per 1,000, and from 57·98 per 1,000 to 6·41 per 1,000 among women. This is shown in a very striking manner by the following table:—

PERSONS IN EVERY 1,000 MARRIED WHO SIGNED BY MARK.

Denomination.	1881.		1891.		1899.	
	M.	F.	M.	F.	M.	F.
Church of England	16·59	27·15	8·29	10·66	3·03	1·52
Presbyterians	10·25	29·61	5·79	8·69	2·17	1·45
Wesleyans and other Methodists	32·41	41·79	8·93	10·71	2·84	9·93
Roman Catholics	117·78	133·33	31·33	18·28	10·10	5·05
Other denominations	10·36	20·72	9·26	..	1·96	7·84
By Registrars	39·22	93·51	27·42	43·08	8·41	17·88
Total marriages	32·04	57·98	13·93	16·82	4·39	6·41

The proportion of illiterates in 1899 was greatest among those married before Registrars. Previously the proportion was largest among Roman Catholics; but since 1881 it has, as shown by the table, most remarkably decreased.

AGES OF PERSONS MARRIED.

Of the persons married in 1899, 115 bridegrooms and 1,027 brides were under 21 years of age—three of the bridegrooms were between 17 and 18 years of age, and eight between 18 and 19. Of the brides, one was under 15 years of age, ten were between 15 and 16, and twenty-eight between 16 and 17 years of age. The proportion of men married is greatest at the ages of 25 to 30, and of women at from 21 to 25 years.

The following are the proportions of men and women married at each age-period to every 100 marriages in the years 1888 and 1899:—

Age.	1888.		1899.	
	M.	F.	M.	F.
Under 21 years	1·85	24·30	2·10	18·81
21 and under 25	28·17	42·05	25·01	39·17
25 " 30	33·81	21·15	36·97	26·44
30 " 40	26·02	8·98	27·14	12·12
40 " 50	6·69	2·74	5·33	2·40
50 " 60	2·52	0·61	2·20	0·82
60 " 70	0·88	0·14	1·01	0·22
70 and upwards	0·06	0·03	0·24	0·02

Registrars of Marriages are prohibited by law from issuing certificates for the marriage of minors without the consent of their parents or lawful guardians, if there be any in the colony. If a declaration be made in any case that there is no parent or lawful guardian in the colony, then a certificate may be issued after the expiration of fourteen days following the date on which the notice of intended marriage is given.

A marriage may not be solemnised except after the delivery to the minister or Registrar who officiates of a certificate issued by a Registrar authorising such marriage, and if any persons knowingly and wilfully intermarry without such certificate the marriage is null and void; and no clergyman or minister of any denomination is empowered to solemnise marriages until his name has been placed on the Registrar-General's list of officiating ministers for the year.

The ages at which persons may contract binding marriages are the same as in England—12 years for females and 14 for males. Marriage may be contracted at earlier ages than those stated, but would be voidable at the discretion of either of the parties upon reaching the age of 12 or 14, as the case may be, and without the necessity of proceedings in Court.

Although in New Zealand the age at which girls may legally marry is as above; nevertheless, by the criminal law, to unlawfully carnally know a girl under the age of 16 years is now a punishable offence. The age of consent was raised from 15 to 16 by statute passed in 1896.

The average age of the men married in this colony in 1899 was 29·86 years, and of the women, 25·48 years. In England the mean age of those whose ages were stated was (in the year 1894) 28·41 years for men, and 26·15 years for women. Thus the average age at marriage in the colony is higher for men, but lower for women, than in England.

The proportion of bridegrooms under 21 is much greater in England than in New Zealand; but the proportion of brides under 21 is greater in the colony.

In England, in 1891–95, of every 1,000 bridegrooms whose ages were stated, 56 were under 21 years of age, and of every 1,000 brides 183 were under 21 years of age. In New Zealand, in 1899, the proportions were 21 bridegrooms and 188 brides of similar ages in every 1,000 married:—

Year.	Bridegrooms under 21 in every 100.	Brides under 21 in every 100.
1888	1·85	24·30
1890	1·89	22·75
1892	1·62	20·14
1894	1·44	19·53
1896	1·96	19·51
1898	1·57	18·13
1899	2·10	18·81

NUMBER OF MINISTERS.

The number of the clergy enumerated at the census of 1896 was 777. In 1891 the number returned was 732. Besides the regular clergy, there were, in 1896, 11 Mormon missionaries and 221 Salvation Army officers, of whom 112 were females; also 17 evangelists, 52 missionaries (11 women), and 45 preachers. The number of names on the list of officiating ministers under the Marriage Act is (March, 1900) 946, and the denominations to which they belong are shown hereunder.

NUMBER OF OFFICIATING MINISTERS, 31ST MARCH, 1900.

Denomination.	No.	Denomination.	No.
Church of England	314	Free Methodist Churches	6
Presbyterian Church of New Zealand	116	Newton (Auckland) Gospel Mission	1
Presbyterian Church of Otago and Southland	87	Independent Wesleyan	1
Roman Catholic Church	155	Brethren	1
Wesleyan Methodist Church	143	The Forward Movement	1
Congregational Independents	20	Salvation Army	9
Baptists	24	Catholic Apostolic Church	3
Primitive Methodist Connexion	31	Seventh-day Adventists	4
Lutheran Church	10	Conditionalists	1
Hebrew Congregations	6		
Church of Christ	13	Total	946

There were, at the time of the census, 25 theological students, 72 church officers such as sextons and others, and 82 members of religious orders not ministering to charity or education.

DEATHS.

The deaths in 1899 numbered 7,680, being equivalent to a rate of 10·24 in every 1,000 persons living, as against 9·84 in 1898. The lowest experienced since the year 1887, when the deaths were 10·29 per 1,000 of the population, was that for 1896 (9·10).

The death-rate in New Zealand contrasts very favourably with that in the other Australasian Colonies and in European countries, as will be seen by the figures given for a series of years:—

Country.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	897.	1898.	1899.
New Zealand	9·66	10·35	10·06	10·23	10·19	9·91	9·10	9·14	9·84	10·24
Queensland	13·59	12·77	12·66	13·34	12·08	11·38	12·10	11·33	12·66	12·07
New South Wales	12·90	14·24	12·20	13·24	12·36	11·79	12·30	10·88	12·48	11·82
Victoria	16·10	16·24	13·63	14·11	13·14	13·25	13·35	12·90	15·94	14·28
South Australia*	12·59	13·30	11·41	13·44	11·64	11·25	11·48	11·24	13·06	12·09
Western Australia	12·06	17·33	16·67	15·31	14·40	17·78	16·45	16·97	16·05	13·76
Tasmania	14·74	15·00	13·53	13·47	12·42	11·38	11·63	11·53	13·51	12·25
England and Wales	19·5	20·2	19·0	19·2	16·6	18·7	17·1	17·7	17·6	..
Scotland	19·7	20·7	18·6	19·5	17·2	19·7	16·9	18·8	18·4	..
Ireland	18·2	18·4	19·4	17·9	18·2	18·4	16·6	18·4	18·1	..
Denmark	19·0	20·0	19·4	18·9	17·5	16·9	15·7	16·6	15·6	..
Norway	17·9	17·5	17·8	16·3	16·9	15·7	15·2	15·2	15·2	..
Sweden	17·1	16·8	17·9	16·8	16·4	15·2	15·6	15·4	..	..
Austria	29·4	28·2	28·8	27·2	27·8	27·7	26·4	25·6	24·9	..
Hungary	32·4	33·1	35·0	31·1	30·4	29·6	28·8	28·4	27·9	..
Switzerland	21·0	20·6	19·2	20·4	20·5	19·6	18·3	18·2	18·9	..
German Empire	24·4	23·4	24·1	24·6	22·3	22·1	20·8	21·3	20·6	..
Netherlands	20·5	20·7	21·0	19·2	18·5	18·6	17·2	16·9	17·0	..
France	22·6	22·6	22·6	22·8	21·4	22·3	20·2	19·6	21·2	..
Italy	26·4	26·2	26·3	25·3	25·1	25·2	24·2	22·1	23·1	..

* Excluding the Northern Territory.

In this statement New Zealand is conspicuous as showing the lowest death-rate. The rates for the principal colonies in Australia are a little higher, but, generally speaking, far below those for the United Kingdom or the European Continental States mentioned in the table.

Deaths and Death-rates of the Four Principal Cities and their Suburbs.

In the earlier annual reports on the vital statistics of the four chief towns the central boroughs alone were dealt with, particulars respecting the suburbs not having been obtained. But this omission was held to be a grave defect, as the suburban death-rate may differ much from the death-rate at the centre. Steps were therefore taken early in 1895 to collect statistics of the suburban boroughs as well as of the four chief cities. As regards Auckland and Christchurch, the whole of the area usually recognised as suburban has not yet been brought under municipal government, and the statistics given below do not deal with such portions as still remain in road districts. The omission, however, is not very important, for there are in either case quite enough suburbs included within borough boundaries to give a fair idea of the death-rate of greater Auckland and greater Christchurch. As further boroughs are formed the vital statistics will be made to include them.

The total number of deaths registered for the four centres in 1899 was 2,254—viz., 1,523 in the cities, and 731 in the suburbs. In 1898 the number was 2,203: 1,489 in the cities, and 714 in the suburbs.

By including the suburbs the death-rate for last year is lowered at each of the four centres. The rates for the year are:—

	Death-rates per 1,000 of mean Population.	
Auckland City	13·02	
" and five suburban boroughs ..		11·98
Wellington City	11·16	
" and three suburban boroughs ..		10·86
Christchurch City	12·68	
" and four suburban boroughs ..		11·58
Dunedin City	13·47	
" and eight suburban boroughs ..		11·99

Mortality at Four Centres, including Suburbs.

If the suburbs are included, the death-rate is found to be highest in Dunedin and lowest in Wellington; Auckland and Christchurch taking second and third places respectively. The death-rate for the colony was 10·24 per 1,000 of mean population. The four centres, as might be expected, each show a higher average than this.

If the number of deaths of infants under one year be excluded, the mortality among the rest of the population is found to have been for 1898 and 1899 in the following ratio to the 1,000 living:—

		1898.	1899.
Auckland (including suburbs)	.. ..	8·97	8·40
Wellington "	.. ..	8·52	7·91
Christchurch "	.. ..	8·40	8·43
Dunedin "	.. ..	9·90	9·99

The degree of infantile mortality is perhaps best shown in the proportion of deaths of children under one year of age to every 100 births. For 1898 and 1899 the proportions at the chief centres were,—

		1898.	1899.
Auckland (including suburbs)	.. ..	15·10	14·17
Wellington "	.. ..	13·11	11·79
Christchurch "	.. ..	9·16	14·30
Dunedin "	.. ..	8·01	9·25

Thus the proportion at Dunedin is considerably less than that found at either of the other chief cities. Again, the percentage of deaths of children under 5 to the total number of deaths is: in Auckland, 37·60; in Christchurch, 34·94; in Wellington, 33·14; and in Dunedin, only 22·35. The total of deaths under 5 is 720, or 31·94 per cent. of all deaths, as against 642 and 29·14 for 1898. The deaths of persons of 65 and upwards numbered 505 last year; in 1898 they were 506.

MORTALITY AT FOUR CENTRES, EXCLUDING SUBURBS.

Excluding suburbs, and dealing with the deaths at all ages in the four cities or central boroughs only, the rates for 1899 are found to be lower in Auckland and Wellington, but higher in Christchurch and Dunedin than in the previous year. The total number of deaths, and the death-rates, for four years are given:—

Cities (excluding Suburbs).	Deaths, 1896.		Deaths, 1897.		Deaths, 1898.		Deaths, 1899.	
	No.	Per 1,000 of Population	No.	Per 1,000 of Population.	No.	Per 1.000 of Population.	No.	Per 1,000 of Population.
Auckland ..	453	14·42	416	12·99	483	14·22	499	13·02
Wellington ..	434	11·59	463	12·03	516	12·47	477	11·16
Christchurch ..	195	11·49	226	13·15	192	10·87	230	12·68
Dunedin ..	219	9·60	273	11·81	298	12·73	317	13·47

By omitting the deaths of infants under one year, and calculating the rate on the population of one year of age and upwards, the position of the four cities as regards magnitude of death-rate in 1899 remains unaltered.

		Deaths per 1,000 of Population, excluding Infants (under One Year of Age).			
		1896.	1897.	1898.	1899.
Auckland (excluding suburbs)	..	10·02	9·64	9·86	9·53
Wellington "	..	9·17	9·35	9·18	8·39
Christchurch "	..	8·86	10·65	8·85	9·16
Dunedin "	..	8·07	10·70	10·87	11·59

Subjoined is a table showing the rates of infant mortality in the four cities for each of the past five years, together with the mean rates for the period.

	Deaths of Children under One Year to every 100 Births.					
	1895.	1896.	1897.	1898.	1899.	Mean of Five Years.
Auckland (excluding suburbs) ..	14·86	16·48	12·80	17·14	14·47	15·15
Wellington " ..	12·40	10·05	10·59	13·71	12·26	11·80
Christchurch " ..	11·14	12·97	12·50	10·00	19·71	13·26
Dunedin " ..	9·47	7·83	6·22	9·66	10·20	8·67

CAUSES OF DEATH AT FOUR CENTRES, INCLUDING SUBURBS.

While treating of the death-rates at the chief cities and surroundings, it is desirable to refer to the causes of mortality, which is done in the remarks that follow. The deaths for the whole colony, classified according to their cause, are treated of at length a little further on.

Specific Febrile and Zymotic Diseases (at Four Chief Centres).

The mortality from these diseases at Christchurch and Dunedin, with their suburbs, was much higher in 1899 than in 1898. Growth of population can only be said to account for a very small part of the increase. At Wellington and at Auckland the deaths for last year by zymotic diseases were fewer than in 1898. The total deaths in this class for the four towns were 304 for 1898 and 360 for 1899.

	Deaths from Febrile and Zymotic Diseases.				
	Auckland and Suburbs.	Wellington and Suburbs.	Christchurch and Suburbs.	Dunedin and Suburbs.	Total.
1899 ..	110 ..	62 ..	104 ..	84 ..	360
1898 ..	117 ..	99 ..	44 ..	44 ..	304

Of the above, diarrhœal diseases caused most deaths in 1899 at the four centres taken together, the total number being 142. Whooping-cough came next, with 54 deaths, then influenza with 42, measles 37, typhoid fever 36, diphtheria 19, and other zymotic complaints 30. Diarrhœa was most prevalent at Christchurch (61 deaths), whooping-cough at Auckland (23 deaths) and Wellington (20).

Comparison of the deaths for each city shows,—

Zymotic, &c., Diseases.	Auckland and Suburbs.		Wellington and Suburbs.		Christchurch and Suburbs.		Dunedin and Suburbs.	
	1899.	1898.	1899.	1898.	1899.	1898.	1899.	1898.
Diarrhœal diseases ..	39	59	16	36	61	14	26	15
Influenza	9	14	9	21	5	17	19	18
Typhoid fever ..	16	22	9	12	5	4	6	..
Measles	12	7	3	15	13	2	9	4
Diphtheria	2	3	3	2	11	3	3	2
Whooping cough ..	23	..	20	..	2	..	9	..
Other zymotic diseases	9	12	2	13	7	4	12	5

Parasitic Diseases (at Four Chief Centres).

Hydatids were fatal at Auckland (2 deaths), Wellington (3 deaths), Christchurch (1 death), and Dunedin (2 deaths). These, with 1 death from thrush at Auckland, make a total of 9.

Dietetic Diseases (at Four Chief Centres).

These numbered 29, of which 12 were attributed to intemperance; 17 being due to want of breast-milk or malnutrition.

Constitutional Diseases (at Four Chief Centres).

From these, deaths at the four towns numbered 466 in 1899. The first in importance of these diseases, and of all causes of death, is tubercle. The figures for 1899 and 1898 show 248 and 249 deaths for each year respectively.

Phthisis and other Tubercular Diseases (at Four Chief Centres).

	1899.		1898.	
	Phthisis.	Other Tubercular Diseases.	Phthisis.	Other Tubercular Diseases.
Auckland and suburbs..	59	11	48	8
Wellington " ..	46	12	50	12
Christchurch " ..	36	13	49	5
Dunedin " ..	56	15	61	21
	197	51	208	41

The mortality from tubercular diseases for 1899 was 11·00 per cent. of the total deaths at the four boroughs from all causes.

Deaths from cancer at the chief towns decreased in number from 160 in 1898 to 151 in 1899. The latter number is 6·70 per cent. of deaths for the year from all causes.

Diabetes showed 15 deaths, against 18 in 1898.

Developmental Diseases (at Four Chief Centres).

There were 196 deaths; 81 of which were from premature birth, and 108 from old age.

Local Diseases (at Four Chief Centres).

Deaths in this class were 5 less than in 1898, the figures being 1,007 against 1,012. Diseases of the respiratory system showed 245 deaths for 1899, or rather less than one-fourth of the whole mortality in the class, against 250 in the former year. Bronchitis, pneumonia, congestion of lungs, pleurisy, and allied diseases form this group.

Under the head of diseases of the digestive system there were 183 deaths at the four centres, including 42 from enteritis; gastritis, 14; cirrhosis of liver, 14; hepatitis, 5; and dentition, 22.

Diseases of the urinary system caused 86 deaths. The remaining deaths were: 223 from nervous diseases, 1 disease of organs of special sense, 230 of organs of the circulatory system, 10 of the lymphatic, 19 of the reproductive system, 7 of the organs of locomotion, and 3 of the integuments.

Violent Deaths (at Four Chief Centres).

There were 102 violent deaths at the cities and suburbs, 87 of which were classed as accidental. Nine of these latter were caused by fractures, and 16 by falls. In 6 cases death resulted from the deceased being run over by cab, cart, wagon, or train. Six deaths were from burning, 19 by drowning, 9 by suffocation, 4 by poisoning, 1 by misadventure with chloroform, 3 by an explosion of guncotton, besides 8 from accident at birth, and 6 others.

Of 12 suicides, 5 were by shooting, 1 by cutting throat, 3 by poison, and 3 by hanging.

VITAL STATISTICS OF AUSTRALASIAN CAPITALS, 1899.

The vital statistics of the chief cities, *with their suburbs*, of the Australasian Colonies, show that the death-rate in Wellington (N.Z.) for 1899 was lower than that of any other of the principal towns for the same year.

Capital Cities including Suburbs.		Estimated Mean Population.	Births.		Deaths.		Excess of Births over Deaths.
			Total Number.	Rate per 1,000 of Population.	Total Number.	Rate per 1,000 of Population.	
Melbourne	..	475,380	12,435	26·16	7,317	15·39	5,118
Sydney ..	..	432,625	12,239	28·29	5,511	12·74	6,728
Adelaide	..	148,644	4,165	28·02	2,260	15·20	1,905
Brisbane *	..	119,728	3,251	27·15	1,313	10·97	1,938
Perth ..	..	37,105	1,266	34·12	607	16·36	659
Hobart	..	41,040	842	20·52	576	14·04	266
Wellington	..	47,535	1,167	24·97	516	10·86	671

* Ten-mile radius.

DEATHS IN THE WHOLE COLONY AT VARIOUS AGE-PERIODS.

The average age at death of persons of either sex, in each of the five years, 1895–99, was as follows:—

		Males.	Females.
1895	.. .. ..	36·21 years	30·17 years.
1896	.. .. ..	36·80 "	32·41 "
1897	.. .. ..	38·30 "	34·77 "
1898	.. .. ..	39·29 "	35·69 "
1899	.. .. ..	37·73 "	33·54 "

From a mortality table, constructed by the Assistant Actuary of the Government Life Insurance Department for his own purposes, it appears that out of every 1,000 males born 662 reach the age of 50 years, 614 the age of 55, 550 the age of 60, and 471 the age of 65. For females, 688 out of every 1,000 born live to 50 years, 648 to 55, 598 to 60, and 530 to 65. These results must not be regarded as put forward by authority of the department.

Subjoined is a classified statement of the deaths of infants under one year during 1899, with the ratio of the deaths in each class to the 1,000 births during the year:—

Year.	Sex.	Under 1 Month.	1 and under 3 Months.	3 and under 6 Months.	6 and under 12 Months.	Total under 12 Months.
		NUMBER OF DEATHS.				
1899 ..	Male	373	214	210	219	1,016
	Female	246	175	168	201	790
		DEATHS TO THE 1,000 BIRTHS.				
1899 ..	Male	38·36	22·01	21·59	22·52	104·48
	Female	27·00	19·20	18·44	22·06	86·70

One hundred and four out of every thousand of male children born, and eighty-seven of every thousand females, are found to have died before attaining the age of one year. The mortality is thus one in nine of male children and one in eleven of females, even in New Zealand, where conditions are far more favourable to infant life than in Australia, at least as far as relates to the cities.

It will also be seen from the figures that the chances of living during the first year of age are far greater for female than for male infants. Thus, during the year 1899 there were—

100	deaths of males to	70	deaths of females	under 1 month of age;
100	„	87	„	from 1 to 3 months of age;
100	„	85	„	from 3 to 6 months of age;
100	„	98	„	from 6 to 12 months of age;
100	„	83	„	under 12 months of age.

The rates of infantile mortality—that is, the proportion the deaths of children under one year of age bear to the births—are higher in the Australian Colonies than in New Zealand.

CAUSES OF DEATH (THE WHOLE COLONY).

The deaths registered in the colony during the last five years, when distributed among the several classes according to their assigned causes, give the rates shown hereunder:—

Causes of Death.	Rate per 10,000 living.				
	1895.	1896.	1897.	1898.	1899.
Zymotic diseases	11·24	10·24	8·44	10·99	12·41
Parasitic diseases	0·36	0·24	0·18	0·37	0·38
Dietetic diseases	0·81	0·86	0·84	0·87	1·03
Constitutional diseases	18·95	17·06	17·99	18·81	18·75
Developmental diseases	7·12	7·25	7·46	8·80	9·64
Local diseases	48·60	43·31	45·30	46·86	48·69
Violence	8·62	8·32	7·55	7·43	7·23
Ill-defined and not-specified causes ..	3·42	3·72	3·63	4·26	4·27
All causes	99·12	91·00	91·39	98·39	102·40

The next table shows that forty-eight in every one hundred deaths in 1899 were from local diseases, of which diseases of the respiratory system formed 13 per cent., diseases of the circulatory system 10 per cent., and of the nervous system 11 per cent., while diseases of the digestive system contributed 8 per cent. Constitutional diseases, including, with others, phthisis and cancer, comprised 18 per cent. of the total mortality. Twelve per cent. of deaths were from zymotic causes, including 7·19 per cent. from miasmatic diseases, and 3·88 per cent. from diarrhœal. Deaths from developmental diseases come next in proportion, being 9·41 per cent. of the whole, followed by violent deaths, with 7·06 per cent.

Causes of Death.	Number of Deaths.			Proportion to Total Deaths.			Proportion per 10,000 living, 1899.	Proportion per 10,000 living, 1898.
	Male.	Female.	Total.	Male.	Female.	Total.		
				Per Cent.	Per Cent.	Per Cent.		
Class I. Specific febrile or zymotic diseases,—								
Order 1. Miasmatic diseases	296	256	552	6·63	7·96	7·19	7·36	6·11
" 2. Diarrhœal diseases	165	133	298	3·70	4·13	3·88	3·97	3·74
" 3. Malarial diseases	...	...	...	...	..	...	...	...
" 4. Zoogenous diseases	...	...	...	...	...	...	...	...
" 5. Venereal diseases	16	8	24	0·36	0·25	0·31	0·32	0·39
" 6. Septic diseases	21	36	57	0·47	1·12	0·74	0·76	0·75
Total Class I.	498	433	931	11·16	13·46	12·12	12·41	10·99
Class II. Parasitic diseases	13	16	29	0·29	0·50	0·38	0·38	0·37
Class III. Dietetic diseases	49	28	77	1·10	0·87	1·00	1·03	0·87
Class IV. Constitutional diseases	780	626	1,406	17·47	19·47	18·31	18·75	18·61
Class V. Developmental diseases	414	309	723	9·27	9·61	9·41	9·64	8·80
Class VI. Local diseases,—								
Order 1. Diseases of nervous system	484	324	808	10·84	10·07	10·52	10·77	10·59
" 2. Diseases of organs of special sense	2	5	7	0·04	0·16	0·09	0·09	0·18
" 3. Diseases of circulatory system	502	296	798	11·25	9·20	10·39	10·64	10·54
" 4. Diseases of respiratory system	573	414	987	12·84	12·87	12·85	13·16	11·36
" 5. Diseases of digestive system	341	308	649	7·64	9·58	8·45	8·66	8·08
" 6. Diseases of lymphatic system	12	18	30	0·27	0·56	0·39	0·40	0·50
" 7. Diseases of urinary system	163	92	255	3·65	2·86	3·32	3·40	3·72
" 8. Diseases of reproductive system,—								
(a.) Of organs of generation	...	11	11	...	0·34	0·14	0·15	0·36
(b.) Of parturition	...	71	71	...	2·21	0·93	0·95	0·98
" 9. Diseases of locomotive system	14	6	20	0·31	0·19	0·26	0·25	0·33
" 10. Diseases of integumentary system	9	7	16	0·20	0·22	0·21	0·22	0·23
Total Class VI.	2,100	1,552	3,652	47·04	48·26	47·55	48·60	46·86
Class VII. Violence,—								
Order 1. Accident or negligence	366	96	462	8·20	2·99	6·02	6·16	6·29
" 2. Homicide	5	4	9	0·11	0·12	0·12	0·12	0·08
" 3. Suicide	58	13	71	1·30	0·40	0·92	0·95	1·08
" 4. Execution	...	...	...	...	...	...	...	0·03
Total Class VII.	429	113	542	9·61	3·51	7·06	7·23	7·43
Class VIII. Ill-defined and not-specified causes	181	139	320	4·06	4·32	4·17	4·27	4·26
Grand totals	4,464	3,216	7,680	100·00	100·00	100·00	102·40	98·39

The next table shows, for either sex, the number of deaths from each cause registered during the year 1899:—

CAUSES OF DEATH.

Class.	Causes of Death. Orders and Diseases.	Males.	Females.	Total.
I.—Specific Febrile or Zymotic Diseases.	ORDER 1.—*Miasmatic.*			
	Small-pox	...	...	...
	Chicken-pox	...	...	...
	Measles	74	63	137
	Epidemic rose-rash, rubeola	...	...	..
	Scarlet fever, scarlatina	...	...	...
	Typhus	...	...	...
	Dengue	...	...	...
	Relapsing fever	...	...	...
	Influenza	77	58	135
	Whooping-cough ...	43	80	123
	Mumps	...	...	...
	Diphtheria	35	23	58
	Cerebro-spinal fever ...	...	...	...
	Simple and ill-defined fever*	2	4	6
	Enteric fever, typhoid ...	65	28	93
	Other miasmatic diseases	...	...	...
	Total Order 1 ...	296	256	552
	ORDER 2.—*Diarrhœal.*			
	Simple cholera	8	4	12
	Diarrhœa	151	126	277
	Dysentery	6	3	9
	Total Order 2 ...	165	133	298
	ORDER 3.—*Malarial.*			
	Remittent fever... ...	...	...	...
	Ague	...	...	...
	Beriberi	...	...	...
	Total Order 3 ...	...	...	...
	ORDER 4.—*Zoogenous.*			
	Hydrophobia	...	...	...
	Glanders	...	...	...
	Splenic fever	...	...	...
	Cow-pox and other effects of vaccination... ...	...	...	...
	Total Order 4 ...	...	...	...
	ORDER 5.—*Venereal.*			
	Syphilis	13	8	21
	Gonorrhœa, stricture of urethra, ulcer of groin	3	...	3
	Total Order 5 ...	16	8	24
	ORDER 6.—*Septic.*			
	Phagedæna	...	...	...
	Erysipelas	6	4	10
	Pyæmia, septicæmia ...	15	17	32
	Puerperal fever, pyæmia, septicæmia	...	15	15
	Total Order 6 ...	21	36	57
	Total Class I. ...	498	433	931
II.—Parasitic Diseases.	Thrush	2	3	5
	Other diseases from vegetable parasites ...	...	...	...
	Hydatid disease ...	11	11	22
	Worms	...	2	2
	Other diseases from animal parasites	...	...	...
	Total Class II. ...	13	16	29
III.—Dietetic Diseases.	Starvation	7	3	10
	Want of breast-milk ...	11	4	15
	Scurvy	...	...	...
	Intemperance—			
	Chronic alcoholism ...	23	9	32
	Delirium tremens ...	3	1	4
	Other dietetic diseases ...	5	11	16
	Total Class III. ...	49	28	77
IV.—Constitutional Diseases.	Rheumatic fever ...	18	20	38
	Rheumatism	4	5	9
	Gout	4	...	4
	Rickets	...	2	2
	Cancer	271	197	468
	Tabes mesenterica, tubercular peritonitis ...	30	32	62
	Tubercular meningitis, acute hydrocephalus ...	35	37	72
	Phthisis	334	259	593
	Other forms of tuberculosis, scrofula	40	28	68
	Purpura, hæmorrhagic diathesis	3	4	7
	Anæmia, chlorosis, leucocythæmia ...	16	19	35
	Diabetes mellitus ...	23	21	44
	Other constitutional diseases	2	2	4
	Total Class IV. ...	780	626	1,406
V.—Developmental Diseases.	Premature birth ...	145	116	261
	Atelectasis	7	3	10
	Cyanosis	6	4	10
	Spina bifida	6	2	8
	Imperforate anus ...	...	...	...
	Cleft palate, hare-lip ...	1	...	1
	Other congenital defects	13	5	18
	Old age	236	179	415
	Total Class V. ...	414	309	723
VI.—Local Diseases	ORDER 1.—*Diseases of Nervous System.*			
	Inflammation of the brain or its membranes	53	39	92
	Cerebro-spinal meningitis	...	...	...
	Apoplexy	124	83	207
	Softening of brain ...	7	7	14
	Hemiplegia, brain paralysis	19	14	33

CAUSES OF DEATH—*continued.*

Class.	Causes of Death.	Males.	Females.	Total.
	Orders and Diseases.			
VI.—LOCAL DISEASES—*continued.*	ORDER 1.—*Diseases of Nervous System*—contd.			
	Paralysis (undescribed)...	41	33	74
	Paralysis agitans ...	...	2	2
	Insanity, general paralysis of insane	40	20	60
	Chorea	...	...	...
	Epilepsy	21	16	37
	Convulsions	88	67	155
	Laryngismus stridulus ...	1	...	1
	Idiopathic tetanus ...	2	2	4
	Paraplegia, diseases of spinal cord	16	10	26
	Locomotor ataxia ...	12	1	13
	Other diseases of nervous system	60	30	90
	Total Order 1 ...	484	324	808
	ORDER 2.—*Diseases of Organs of Special Sense.*			
	Otitis, otorrhœa... ...	2	5	7
	Epistaxis, and diseases of nose	...	...	...
	Ophthalmia, and diseases of eye	...	...	...
	Total Order 2 ...	2	5	7
	ORDER 3.—*Diseases of Circulatory System.*			
	Endocarditis, valvular disease	313	210	523
	Pericarditis	1	1	2
	Hypertrophy of heart ...	10	8	18
	Fatty degeneration of heart	35	17	52
	Angina pectoris	19	6	25
	Syncope	89	37	126
	Aneurism	22	2	24
	Senile gangrene... ...	3	4	7
	Embolism, thrombosis ...	5	4	9
	Phlebitis	1	1	2
	Varicose veins, piles ...	...	...	...
	Other diseases of circulatory system	4	6	10
	Total Order 3 ...	502	296	798
	ORDER 4.—*Diseases of Respiratory System.*			
	Laryngitis	17	5	22
	Croup	18	19	37
	Other diseases of larynx and trachea	2	1	3
	Asthma, emphysema ...	29	10	39
	Bronchitis	188	181	369
	Pneumonia	237	152	389
	Pleurisy	31	21	52
	Other diseases of respiratory system	51	25	76
	Total Order 4 ...	573	414	987
VI.—LOCAL DISEASES—*continued.*	ORDER 5.—*Diseases of Digestive System.*			
	Stomatitis, cancrum oris	3	5	8
	Dentition	23	28	51
	Sore throat, quinsy ...	1	5	6
	Dyspepsia	5	3	8
	Hæmatemesis	2	...	2
	Melæna	6	2	8
	Diseases of stomach, gastritis	32	29	61
	Enteritis	107	89	196
	Ulceration, perforation, of intestine	5	10	15
	Ileus, obstruction of intestine	25	32	57
	Stricture or strangulation of intestine	2	1	3
	Intussusception of intestine	6	5	11
	Hernia	11	8	19
	Fistula	...	...	...
	Peritonitis	28	36	64
	Ascites	1	3	4
	Gall-stones	6	2	8
	Cirrhosis of liver ...	21	9	30
	Other diseases of liver, hepatitis, jaundice ..	35	29	64
	Other diseases of digestive system	22	12	34
	Total Order 5 ...	341	308	649
	ORDER 6.—*Diseases of Lymphatic System and Ductless Glands.*			
	Diseases of lymphatic system	5	1	6
	Diseases of spleen ...	1	..	1
	Bronchocele	2	12	14
	Addison's disease ...	4	5	9
	Total Order 6 ...	12	18	30
	ORDER 7.—*Diseases of Urinary System.*			
	Acute nephritis	12	6	18
	Bright's disease ...	77	62	139
	Uræmia	11	9	20
	Suppression of urine ...	...	1	1
	Calculus	4	2	6
	Hæmaturia	1	1	2
	Diseases of bladder and prostate	37	5	42
	Other diseases of urinary system (kidney diseases undescribed)	21	6	27
	Total Order 7 ...	163	92	255
	ORDER 8.—*Diseases of Reproductive System.*			
	(*a.*) Diseases of organs of generation,—			
	Ovarian disease ...	...	4	4

CAUSES OF DEATH—*continued.*

Class.	Causes of Death.	Males.	Females.	Total.
	Orders and Diseases.			
VI.—LOCAL DISEASES—*continued.*	ORDER 8.—*Diseases of Reproductive System*—ctd.			
	(*a.*) Diseases of organs of generation—*ctd.*			
	Diseases of uterus and vagina	...	7	7
	Disorders of menstruation	...	...	...
	Pelvic abscess	...	...	...
	Perineal abscess ...	...	...	...
	Diseases of testes, penis, scrotum, &c.	...	...	...
	(*b.*) Diseases of parturition,—			
	Abortion, miscarriage ...	...	20	20
	Puerperal mania ...	...	1	1
	Puerperal metritis ...	...	1	1
	Puerperal convulsions ...	...	9	9
	Placenta prævia (flooding)	...	4	4
	Phlegmasia dolens ...	...	...	...
	Other accidents of childbirth	...	36	36
	Total Order 8 ...	...	82	82
	ORDER 9.—*Diseases of Organs of Locomotion.*			
	Caries, necrosis	8	4	12
	Arthritis, ostitis ...	1	1	2
	Other diseases of organs of locomotion	5	1	6
	Total Order 9 ...	14	6	20
	ORDER 10.—*Diseases of Integumentary System.*			
	Carbuncle	3	2	5
	Phlegmon, cellulitis ...	4	4	8
	Lupus	...	1	1
	Ulcer, bed-sore	...	...	...
	Eczema	2	...	2
	Pemphigus	...	...	...
	Other diseases of integumentary system ...	...	...	...
	Total Order 10 ...	9	7	16
	Total Class VI. ...	2,100	1,552	3,652
VII.—VIOLENCE.	ORDER 1.—*Accident or Negligence.*			
	Fractures, contusions ...	160	24	184
	Gunshot wounds ...	7	1	8
	Cut, stab	10	4	14
	Burn, scald	20	21	41
	Sunstroke	3	1	4
	Poison	3	3	6
	Drowning	119	22	141
	Suffocation	18	10	28
	Otherwise	26	10	36
	Total Order 1 ...	366	96	462
	ORDER 2.—*Homicide.*			
	Murder, manslaughter ...	5	4	9
	Wounds in battle ...	...	...	...
	Total Order 2 ...	5	4	9
	ORDER 3.—*Suicide.*			
	Gunshot wounds ...	22	...	22
	Cut, stab	8	...	8
	Poison	5	7	12
	Drowning	4	4	8
	Hanging	19	1	20
	Otherwise	...	1	1
	Total Order 3 ...	58	13	71
	ORDER 4.—*Execution.*			
	Hanging	...	...	...
	Total Class VII. ...	429	113	542
VIII.—ILL-DEFINED AND NOT-SPECIFIED CAUSES.	Dropsy	...	1	1
	Marasmus, &c.	168	134	302
	Mortification, gangrene ...	1	...	1
	Tumour	...	1	1
	Abscess	1	1	2
	Hæmorrhage	...	...	...
	Sudden (cause unascertained)	10	2	12
	Other ill-defined and not-specified causes ...	1	...	1
	Total Class VIII. ...	181	139	320
	General totals ...	4,464	3,216	7,680

MORTALITY FROM ZYMOTIC AND FEBRILE DISEASES.

The deaths in 1899 from specific febrile or zymotic diseases amounted to 931, a proportion of 12·41 in every 10,000 persons living, and an increase of 122 on the number of deaths in 1898, when the proportion was only 10·99. Measles and whooping-cough were the main causes of the increased death-rate in this class.

The following are the diseases in this class that have caused the greatest mortality during the past ten years:—

Diseases.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Measles	1	1	..	525	14	..	1	1	56	137
Scarlet fever and scarlatina	31	24	4	1	5	..	4	2	2	..
Diphtheria ..	116	86	195	128	92	76	74	49	45	58
Whooping-cough ..	82	242	115	55	190	150	24	2	6	123
Influenza ..	70	210	144	106	233	125	89	120	219	135
Diarrhœal diseases	290	319	329	193	207	232	334	257	275	298
Enteric or typhoid fever	145	119	134	97	115	94	124	106	120	93
Puerperal fever ..	19	27	29	24	38	32	10	18	19	15

Measles, which was epidemic in 1893, caused only 16 deaths in the four succeeding years; but in 1898 the mortality rose to 56 and in 1899 to 137 deaths. From scarlatina there were no deaths last year. The mortality from diphtheria rose from 45 deaths in 1898 to 58 in 1899.

Whooping-cough in 1894 destroyed 190 lives, and 150 in 1895, but was in 1896, 1897, and 1898 much less fatal. In 1899 the mortality sprang up again to a total of 123 deaths.

Influenza, the deaths from which were 89 in 1896, 120 in 1897, and 219 in 1898, caused 135 deaths in 1899.

From diarrhœal complaints the deaths in 1899 were 298, or 23 more than in 1898; while in 1896 the mortality reached the height of 334 deaths, and in 1889 was even higher (355), with a much smaller population than in 1899. Diarrhœal diseases are the most fatal of the order "zymotic and febrile," measles coming second for the year 1899, influenza third, and whooping-cough fourth.

Enteric or typhoid fever was less fatal in 1899 than in 1898, the figures being 93 deaths, against 120 for the former year. The highest mortality during the decennium was in 1890, when the deaths numbered 145 for the colony.

VACCINATION.

From small-pox there were no deaths. The vaccinations registered for the last ten years are as under:—

Year.	Total Vaccinations registered.	Number of Births registered.	Proportion of Successful Vaccinations of	
			Children under 1 Year of Age to Total Births. Per Cent.	Children under 14 Years of Age to Total Births. Per Cent.
1899 ..	5,133	18,835	17·94	27·25
1898 ..	10,349	18,955	29·05	54·60
1897 ..	12,440	18,733	32·89	66·41
1896 ..	11,917	18,612	30·78	64·03
1895 ..	8,523	18,546	31·72	44·34
1894 ..	9,322	18,528	32·42	50·31
1893 ..	7,412	18,187	28·09	40·75
1892 ..	8,216	17,876	32·41	45·96
1891 ..	9,284	18,273	38·81	50·81
1890 ..	9,357	18,278	42·66	51·19

The number of successful vaccinations registered in 1899 was only 5,133, against 10,349 in 1898—a decrease foretold in last year's edition of this work as consequent on the alteration of the law in England, where vaccination is in effect no longer compulsory.

One child in every six is shown to have been successfully vaccinated, and for a matter so peculiar as vaccination, and so differently regarded by many persons (see evidence taken by the Royal Commission in England), the above results are quite as much as could reasonably be expected. Comparison with such colonies as New South Wales shows New Zealand to have been hitherto more careful in regard to the prevention of smallpox than some others.

Mr. Coghlan, for instance, writes that "Vaccination is not compulsory in New South Wales, and is resorted to chiefly in times of scare, when an epidemic of small-pox is thought to be imminent. It is easy to discern," says he, "from the returns the years when the community was threatened by the disease." Thus, in 1881, the Government Vaccinators in New South Wales vaccinated 61,239 persons; in 1883, only 896; of late years averaging about 2,000 per annum, but only 945 in 1896.

An extract from the report of the Registrar-General of England published in 1897 is given, which is highly interesting in its reference to the epidemic at Gloucester:—

> *Small-pox.*—The deaths referred to small-pox in the year 1896 were 541 in number, and corresponded to a rate of 18 per million of the population, as compared with rates of 49, 27, and 7 per million respectively in the three preceding years. Of the total deaths from small-pox registered in England and Wales, not fewer than 443 occurred in the registration district of Gloucester, in the course of the epidemic which prevailed there. Within the first two quarters of the year 1896 there were registered in the City of Gloucester 716 deaths from all causes, and of these as many as 421 deaths, or 59 per cent., were ascribed to small-pox. During the first half of the year, therefore, the mortality of the city was increased on account of small-pox alone by 143 per cent. In England and Wales, out of the 541 persons whose deaths were caused by small-pox during 1896, 45, or 8·3 per cent., were certified to have been vaccinated, and 118, or 21·8 per cent., to have been unvaccinated, whilst with respect to the remaining 378, or 69·9 per cent., no sufficient statement as to vaccination appeared in the certificates. In addition to the deaths definitely referred to small-pox, 151 deaths were attributed to chicken-pox, and 42 to effects of vaccination; so that in the year 1896 the total number of deaths either certainly or possibly caused by variola, and of deaths alleged to have been caused by measures taken to prevent that disease, was 734, or 24 per million of the population.
>
> The 42 deaths ascribed to the effects of vaccination include not only the deaths which were directly referred to vaccination, but also those which were stated in the certificates, or were found on inquiry to have been caused by the entrance of any noxious material whatever at the site of vaccination.

The main features of the new English law include a system of domiciliary visitation by public vaccinators, in substitution for that requiring children to be taken to vaccination stations, and exemption of parents and others from any penalty for not vaccinating children on production to the proper officer of a magistrate's certificate to the effect that he is satisfied as to the conscientious objections raised. Vaccination with glycerinated calf lymph, or other lymph issued by Local Government Boards is offered by the Government. The Act continues in force until the beginning of the year 1904.

PARASITIC DISEASES.

There were 29 deaths from parasitic diseases, the proportion per 10,000 living being 0·38. Deaths from hydatids increased from 20 in 1898 to 22 in 1899.

DIETETIC DISEASES: MORTALITY IN LIQUOR TRADE (ENGLAND).

Under the class "Dietetic Diseases" are included 36 deaths from intemperance. But these cannot be said to represent the full extent of the mortality really caused by the abuse of alcoholic liquors. Many deaths of intemperate persons are attributed to disease of the liver, kidneys, &c., in the medical certificates.

The mortality of persons engaged in the liquor trade has been calculated for England, and the conclusions drawn are quoted: "The mortality of persons directly engaged in the supply of spirituous liquors still continues to be enormous. Up to the age of twenty-five years brewers experience little more than the average mortality, but after that age the baneful influence of their employment rapidly becomes apparent. Their mortality throughout the main working period of life exceeds that of occupied males by about 50 per cent. At all ages after the twentieth year publicans are subject to a death-rate which is much higher than the average among occupied males, while at the age-groups 25–35 and 35–45 years the rates are just double the average. . . . The comparative mortality figure of brewers is 1,427, that of publicans is 1,838 in London, 1,948 in the industrial districts, and 1,348 in the agricultural districts, as against 953—the standard figure for occupied males. . . . Taking publicans without distinction of locality, a table shows that they die seven times as fast as do occupied males from alcoholism, 6½ times as fast from diseases of the liver, six times as fast from gout, and more than double as fast from diseases of the urinary system, from rheumatic fever, from diabetes, and from suicide.

"Among publicans in London the case is in some respects worse. Their mortality from all causes is nearly double that of all occupied males taken as a standard. They die nearly ten times as fast from alcoholism, 3¾ times as fast from diseases of the liver, and more than twice as fast from affections of the urinary organs and from suicide."

CONSTITUTIONAL DISEASES: PHTHISIS, CANCER, ETC.

The deaths from constitutional diseases in 1899 numbered 1,406, or 18·75 per 10,000 of population, and 18 out of every 100 deaths from all causes. This class of disease is more fatal than any other except that defined as "Local diseases," on account of the great numbers of deaths from cancer and phthisis, with other tubercular complaints, which are classed as "Constitutional."

From phthisis there are more deaths than from any other cause.

The number of deaths was 593 in 1899, against 597 in 1898 and 596 in 1897. The deaths in 1899 were in the proportion of 7·91 in every 10,000 persons living, against 8·11 in the previous year.

Figures for ten years are quoted, showing that the total number of deaths from this disease for 1898 was the highest recorded during the decennium, though the rate had been slightly higher in some of the previous years.

Year.	Deaths from Phthisis.	Rate per 10,000.
1890	520	8·38
1891	495	7·86
1892	524	8·16
1893	545	8·24
1894	576	8·48
1895	553	7·99
1896	523	7·40
1897	596	8·26
1898	597	8·11
1899	593	7·91

In all the Australasian Colonies the rate is materially increased by the deaths of persons who have come out either already suffering from phthisis or predisposed thereto. There is no reason for believing that this circumstance has more effect on the death-rate in Australia than in New Zealand; so that the lower rate referred to in previous issues of this work as obtaining in this colony may be taken as proof of the superiority of its climate for withstanding consumptive tendencies.

The death-rate of England and Wales from phthisis, though declining, is far higher than that of New Zealand. In 1896 it stood at 13·07 per 10,000, which is the lowest rate on record.

Phthisis is now known to be and is treated as an infectious preventible disease caused by the bacillus tuberculosis, which is communicable in many ways. Certain constitutions are far more predisposed than others to receive this bacillus, especially under conditions of life unfavourable to robust health, when a nidus is formed for the development of the bacillus.

From other forms of tuberculosis the deaths in 1899 were 202, or 2·69 per 10,000 of population. Thus a large addition has to be made to the deaths from phthisis to appreciate the full mischief done by tubercular disease.

Deaths from all Tubercular Diseases.

The mortality from all forms of tubercular disease, taken together, has been at the average rate of about 10½ persons per 10,000 living for the last ten years. This rate is far lower than that which obtained in England during the year 1897, when the proportion was 19·30 per 10,000 living.

A table is supplied showing the results for each of ten years in New Zealand. Besides the death-rate from tubercular diseases, it also shows the percentage of deaths by tubercle to those from all causes, which was from 10 to 11½ per cent. for the decennial period 1890–99.

Nine deaths from "lupus" have not been included in the comparative table for ten years. All these were deaths of adult persons; one of them took place in the year 1899.

The report of the Royal Commission, presented to the Imperial Parliament and dated 4th April, 1898, states that inquiry was made as to what administrative procedures are available and desirable for controlling the danger to man through using as food the meat and milk of tuberculous animals. Nothing was adduced to raise any doubt as to the accuracy of the opinion expressed at a previous Commission in 1895, that tubercular disease in bovine and other animals is identical with that in the human subject, and communicable from one to the other, nor doubt that any person who takes tuberculous matter into the body as food incurs risk of acquiring tuberculous disease. But the conclusion arrived at was that there has been a tendency to exaggerate the extent of the risk arising from meat. Dealing with the question of milk-supply, the Commissioners say :—

> Whatever degree of danger may be incurred by the consumption of the flesh of tuberculous animals, there can be little doubt that the corresponding danger in respect of milk-supply is a far greater one. On this point the opinion of the previous Royal Commission on tuberculosis was emphatic : "No doubt the largest part of the tuberculosis which man obtains through his food is by means of milk containing tuberculous matter." In Great Britain and Ireland meat, as a rule, is cooked before it is eaten to an extent which goes largely to destroy infective matter. Milk, on the other hand, is largely consumed in a raw state, especially by children, and there exists a general distaste for cooked milk as a beverage. Amongst most continental nations the practice is to some extent the opposite of this, and large quantities of meat, especially in the various forms of sausages, are consumed absolutely raw, while the greater proportion of the milk is cooked before consumption. It has been proved over and over again that milk from tuberculous udders, and even milk which has been purposely contaminated with tuberculous matter, can be rendered perfectly harmless by being boiled for one minute—a method of sterilisation which we agree with the former Commission in preferring for general application to any of the other plans which have been employed. We have already explained how unsatisfactory is the system of meat inspection in this country; but as regards milk, in relation to tuberculosis, inspection is still more so; indeed, it may be said not to exist. Even local authorities, who exert themselves to prevent the sale of tuberculous meat, are without sufficient powers to prevent the sale within their districts of milk drawn from diseased cows.

Legislative action has been recommended to safeguard the life and health of the people from tubercle; and the complete isolation of consumptive patients, with the disinfecting of their sputa, and of everything that has been in contact with them, is suggested from time to time as a necessary measure.

Cancer.

The deaths from cancer during the year 1899 were 468. There were more deaths of males than of females, the numbers being, males 271, females, 197. The rate of mortality per 10,000 living was 6·24. The apparent increase in deaths from this disease is shown further on and compared with that of England. But the increase is not believed by all authorities to be a fact to the extent represented, but partly the result of more careful certification of the causes of death, and of improved diagnosis in cases of what is termed inaccessible cancer.

It is certain, however, that out of a total of 7,680 deaths from all causes in New Zealand during 1899, 468, or 6·09 per cent., were caused by cancer.

The death-rate from cancer is not so great as that from tubercular diseases, but is nevertheless a most alarming matter, not only on account of the number of deaths, but because of its progressive increase.

A decennial table shows that the deaths per 10,000 persons living rose from 4·75 in 1890 to 6·24 in 1899; and that whereas 4·92 out of every 100 deaths were attributable to cancer ten years ago, the proportion had grown to 6·09 last year.

TABLE showing for each of the Ten Years, 1890 to 1899, the Number of Persons registered as having Died from Cancer, the Proportion of Deaths from Cancer per 10,000 Living, and the Percentage of all Deaths attributed to Cancer.

Year.	Estimated Mean Population.	Deaths from Cancer.	Total Deaths all Causes.	Deaths from Cancer per 10,000.	Percentage of Total Deaths due to Cancer.
1890 ..	620,780	295	5,994	4·75	4·92
1891 ..	629,783	295	6,518	4·68	4·53
1892 ..	642,245	307	6,459	4·78	4·75
1893 ..	661,349	332	6,767	5·02	4·91
1894 ..	679,196	408	6,918	6·01	5·90
1895 ..	692,417	383	6,863	5·53	5·58
1896 ..	706,846	389	6,432	5·50	6·05
1897 ..	721,609	395	6,595	5·47	5·99
1898 ..	736,260	471	7,244	6·40	6·50
1899 ..	749,984	468	7,680	6·24	6·09

To exhibit how cancer affects the different parts of the human body in respect of each sex, the experience of four years (1896–98 and 1899) is shown in a succeeding table. Of any single organ affected, the stomach is the one most liable to be the seat of cancer among males, although with this sex the disease is apparently to about the same extent located in the mouth, lips, tongue, and throat, taking these parts all together. Next to the stomach, the liver is with males the part which is most often attacked, to judge by mortality records, and next in order come the intestines and rectum. Afterwards, but at a considerable distance, follow the kidneys, bladder, and urethra.

Amongst the females, the organs of generation, ovaries, uterus, and vagina, as a group, show by far most cases of mortality from cancer; but, as with the males, the stomach is, of any single organ, the one most affected, the liver coming next, then the breast, and then the intestines and rectum. Females do not contract cancer in the mouth (judging by the returns of deaths), tongue, lips, and throat, to nearly the same extent as prevails among males.

Whatever may be the cause, the figures are remarkable, being only 6 out of every 100 deaths from cancer among females, against 31 out of every 100 of males dying from the same cause, or, expressed in numbers, 42 deaths of females occurred against 268 of males, from cancer in the mouth, &c., in a four years' experience of mortality.

DEATHS FROM CANCER, 1896–98 AND 1899.

TABLE showing the Number of Deaths of Males and Females from Cancer during the Four Years 1896–98 and 1899, classified according to the part of the Body affected.

	Part Affected.	1896-98.		1899.	
		Number of Deaths.	Proportion of Specified.	Number of Deaths.	Proportion of Specified.
			Per Cent.		Per Cent.
Males.	Mouth, lip, tongue, throat, neck, &c.	203	32·85	65	27·43
	Stomach	181	29·29	87	36·71
	Intestines, rectum	72	11·65	20	8·44
	Liver	102	16·50	40	16·88
	Kidneys, bladder, urethra, &c. ..	28	4·53	17	7·17
	Leg, foot, &c.	14	2·27	6	2·53
	Lung	10	1·62	2	0·84
	Arm, hand, chest, spine, shoulder ..	8	1·29	..	..
		618	100·00	237	100·00
	Not specified	60	..	34	..
	Total	678	..	271	..
Females.	Mouth, tongue, throat, &c. ..	25	4·89	17	9·71
	Breast	70	13·70	20	11·43
	Stomach	106	20·74	40	22·86
	Intestines, rectum	57	11·16	14	8·00
	Kidneys, bladder	6	1·17	4	2·29
	Ovary, uterus, vagina	143	27·98	50	28·57
	Liver	82	16·05	25	14·29
	Gall-bladder, spleen, pancreas ..	9	1·76	3	1·71
	Lung, spine, thigh, shoulder ..	13	2·55	2	1·14
		511	100·00	175	100·00
	Not specified	66	..	22	..
	Total	577	..	197	..

Considering the numbers of persons dying at the different age-periods, the following table of ten years' results shows the age of 30 years to be the time of life at which deaths from cancer begin to be numerous (it is really 35 for males and 30 for females). The maximum of deaths is reached at the period 60 to 65 for males, and 55 to 60 for females. These remarks are given without reference to the numbers of persons living at the various ages.

Deaths from cancer, it will be observed, are very rare among children under 5 years, and not frequent in those above that age.

DEATHS FROM CANCER.—DECENNIAL RETURN.

TABLE showing the Number of Persons (Males and Females) at Different Ages registered as having Died from Cancer in New Zealand during the Ten Years, 1890 to 1899.

Year.	Under 1 Year.				Total under 1 Year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	Total under 5 Years.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and upwards.	Ages not specified.	Total 5 Years and over.	All Ages.
	Under 1 Month.	1 to 3 Months.	3 to 6 Months.	6 to 12 Months.																									
1890...	...	...	...	...	...	...	...	...	...	...	2	...	...	3	4	6	14	22	36	46	47	49	30	19	13	4	...	295	295
1891...	...	...	1	...	1	1	1	...	1	4	...	...	2	3	3	4	15	22	27	52	42	40	41	25	12	3	...	291	295
1892...	...	...	...	...	...	...	..	2	...	2	2	1	2	3	3	7	15	19	27	52	53	45	40	21	11	4	...	305	307
1893...	...	...	...	...	...	...	...	2	1	3	1	3	...	3	1	6	9	22	32	61	54	57	36	25	13	6	...	329	332
1894...	...	...	...	...	...	...	...	1	...	1	1	...	3	1	5	11	15	27	41	64	73	71	38	26	24	7	...	407	408
1895...	...	...	...	...	...	...	...	...	..	...	2	...		3	1	6	11	25	47	61	64	63	38	37	19	6	...	383	383
1896...	...	..	...	...	...	...	...	...	2	2	2	1	1	2	5	6	14	21	36	59	74	67	49	29	14	7	..	387	389
1897 ..	...	1	...	...	1	...	1		1	3	...	2	1	1	...	7	10	22	41	42	71	74	49	35	29	8	...	392	395
1898...	...	...	...	...	...	...	...	2	...	2	1	2	2	5	5	8	17	36	47	47	77	79	69	35	30	9	...	469	471
1899...	...	...	...	...	...	...	...	1	...	1	3	3	...	1	4	6	15	21	42	48	82	64	87	45	27	19	...	467	468

The numbers of deaths of persons from cancer in each provincial district are given in another table, according to age groups, but the result merely shows the disease to be one found everywhere throughout the colony. At least there is no sufficient evidence of climatic conditions affecting the mortality to a great extent in any particular part of the country.

TABLE showing the Number of Deaths from Cancer at Various Ages Registered in each Provincial District of the Colony of New Zealand during the Year 1899.

Provincial Districts.	Ages.																
	Under 5.	to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and upwards.	Not stated.	Total.
Auckland	...	...	...	1	2	5	4	10	5	21	11	14	9	5	2	...	89
Taranaki	...	1	...	...	...	...	2	2	3	5	2	5	1	2	2	...	25
Hawke's Bay	...	1	...	...	...	...	3	4	3	1	4	6	2	1	1	...	26
Wellington...	...	2	...	...	1	3	4	6	9	13	12	9	5	4	2	...	70
Marlborough	...	...	...	...	...	...	...	...	...	2	1	2	...	...	1	...	6
Nelson	...	...	...	...	...	...	2	...	1	8	3	7	4	...	1	...	26
Westland	...	...	...	1	...	...	1	1	3	1	1	2	1	1	...	...	12
Canterbury	...	1	...	1	2	2	3	15	13	13	12	15	12	5	2	...	96
Otago	1	1	1	1	1	5	2	4	11	18	18	27	11	9	8	...	118
Totals	1	6	1	4	6	15	21	42	48	82	64	87	45	27	19		468

The increase since 1881 is well exhibited in respect of each sex, and in regard to the higher ages, which are the periods at which the most cancer deaths occur, by a proportional statement:—

PROPORTIONS OF DEATHS FROM CANCER PER 10,000 MALES AND FEMALES LIVING AT THREE AGE-PERIODS.

Year.	40 to 50.		50 to 60.		60 to 70.	
	Males.	Females.	Males.	Females.	Males.	Females.
1881	5·58	9·80	11·10	22·57	22·86	43·78
1898	9·07	16·59	21·64	26·09	55·21	47·44

The death-rates for cancer in respect of each sex are given for each of five years, selected to show the position as from 1886 to 1899:—

DEATHS FROM CANCER IN EVERY 10,000 PERSONS OF EACH SEX LIVING IN NEW ZEALAND.

Year.	Males.	Females.	Year.	Males.	Females.
1886	3·69	3·67	1898	6·77	5·98
1890	4·72	4·79	1899	6·85	5·56
1894	6·65	5·27			

Here the mortality is higher among the males than among the females, which is the reverse of English experience, where the rate was 6·36 per 10,000 of males and 9·29 of females, for the year 1897. In the United Kingdom, however, the rate of increase is so much higher among males than with females that the Registrar General calculates equilibrium will be reached in about the year 1932, and thereafter the rate among males would exceed the rate among females. The English rate for 1897 is the highest recorded there for each of the two sexes.

The increase in the numbers for the sexes together for England and New Zealand is represented in the proportions below:—

DEATHS FROM CANCER IN EVERY 10,000 PERSONS LIVING.

Year.	New Zealand.	England.
1881	2·69	5·20
1886	3·68	5·90
1891	4·68	6·92
1896	5·50	7·64

The actual number of deaths of persons of either sex and all ages registered in New Zealand during the last ten years was:—

	Males.	Females.	Totals.
1890	156	139	295
1891	154	141	295
1892	173	134	307
1893	188	144	332
1894	240	168	408
1895	208	175	383
1896	205	184	389
1897	210	185	395
1898	263	208	471
1899	271	197	468
Totals	2,068	1,675	3,743

Mortality from Developmental Diseases.

The total of deaths from developmental diseases was 723, or 9·64 per 10,000 persons living. The mortality from premature birth comprised 261 deaths, and that from atelectasis, cyanosis, and other congenital defects 47 deaths. The proportion of deaths from premature birth varies from 10 to 14 out of every 1,000 births, and that from congenital defects from 2 to 4 per 1,000 births. Particulars for five years exhibit the annual rates :—

Number and Proportions per 1,000 Births.

Year.	Deaths from Premature Birth. No.	Deaths from Premature Birth. Proportion per 1,000.	Deaths from Congenital Defects. No.	Deaths from Congenital Defects. Proportion per 1,000.
1895	183	9·87	78	4·21
1896	230	12·36	46	2·47
1897	211	11·26	52	2·78
1898	251	13·24	54	2·85
1899	261	13 86	47	2·50

Stating the result in another way, there was one death from premature birth to every 72 births in 1899, and one death from congenital defect to every 401 births. In England the proportion of deaths from premature birth to every 1,000 births was as high as 18·98 in the year 1895.

Old Age.

Deaths from old age in 1899 numbered 415, against 343 in 1898.

Mortality from Local Diseases.

Deaths by diseases of the nervous system were 808, or 10·52 out of every 100 deaths from all causes, and 10·77 out of every 10,000 persons living. Of the 808 deaths, 207 were credited to apoplexy, 155 to convulsions, and 92 to inflammation of the brain and its membranes. Paralysis, including hemiplegia and paralysis of the insane, caused 169 deaths, and locomotor ataxia 13 deaths. Paraplegia, with diseases of the spinal cord, caused 26. Deaths from nervous diseases (excluding convulsions of children) numbered 653, or 8·71 per 10,000 persons living.

Diseases of the circulatory system resulted in 798 deaths, being 10·39 out of every 100 from all causes, and 10·64 per 10,000 persons living. Of the total number in this order, endocarditis and valvular disease of the heart contributed 523 deaths. From angina pectoris there were 25 deaths, from syncope 126, from aneurism, 24; and from other forms of heart disease (hypertrophy, fatty degeneration, and pericarditis) 72.

Diseases of the respiratory system show 987 deaths, of which 758 were attributable to bronchitis and pneumonia. Taken together, these two complaints were the cause of more deaths than was phthisis, and adding 52 from pleurisy, 37 from croup, 22 from laryngitis, and 118 from other respiratory diseases, the mortality in the order is found to be 12·85 per cent. of the total deaths, and 13·16 per 10,000 of the population.

[illegible] Asylums and Charitable *Institutions.*

[illegible] asylums and charitable institutions are [illegible] hospitals. Most of the Boards of [illegible] Charitable-aid Boards; but, for the [illegible] charitable aid only, some of the hospital [illegible] the larger districts, so that, although [illegible] hospital purposes, there are only twenty- [illegible] aid purposes.

[illegible] thirteen benevolent asylums (not [illegible] established for the support of indigent [illegible] inmates in these institutions at the end [illegible] were males and 485 females. Out- [illegible] of these institutions to 2,180 persons [illegible] to 888 families.

[illegible] Sailors' Home.

[illegible] Sailors' Home at Auckland for the use of seafaring [illegible] the town. The late Edmund Costley [illegible] charitable purposes, it was resolved to [illegible] and endowing an institution where [illegible] without distinction of race or religious [illegible] and refreshments provided for them, [illegible] and amusements as might tend to [illegible] and general welfare.

[illegible] has room for 85 inmates, who are [illegible] board and lodging. It is managed by a [illegible] by the subscribers to the institu- [illegible] New Zealand the Right Rev. W. G. [illegible] as Life President.

[illegible] Asylums.

[illegible] asylums in the colony, one main- [illegible] by the Church of England [illegible] Roman Catholic Church; three [illegible] State, orphan, destitute, and [illegible] by a Stipendiary Magistrate. [illegible] 23 male and 33 female [illegible] year 1899, and 56 male and 80 [illegible] at the end of the year. [illegible] children are, for that purpose, [illegible]

[illegible] Asylums.

[illegible] asylums in the colony, maintained [illegible] revenue. There is also one [illegible] for the reception of [illegible]

The amount of sleeping-accommodation provided in each of the public asylums is shown in tabular form, giving separately the number and cubic contents of the sleeping-rooms intended for one person only, and of the dormitories occupied by several inmates conjointly, together with the number of patients actually in the asylums on the 31st December, 1899:—

—	Sleeping-rooms for One Person only.			Dormitories for more than One Person.		
	Number.	Aggregate Number of Cubic Feet.	Inmates (Patients) on 31st December, 1899.	Number.	Aggregate Number of Cubic Feet.	Inmates (Patients) on 31st December 1899.
Auckland ..	94	84,508	94	22	219,122	359
Wellington ..	67	60,663	67	16	100,173	193
Porirua ..	8	7,068	8	8	259,480	357
Nelson ..	31	27,467	31	14	60,019	109
Hokitika ..	21	15,055	21	9	69,302	100
Christchurch	80	69,651	80	34	227,010	422
Seacliff ..	139	105,886	139	42	241,272	492
Totals ..	440	370,298	440	145	1,176,378	2,032

At Ashburn Hall, Waikari, there are 66 rooms, each for one person only, with an aggregate cubic content of 99,718 ft. The number of inmates on the 31st December, 1899, was 43.

At the end of 1899, 1,512 male and 1,045 female patients were under the care of the asylum officers of the colony. Of these, 1,430 males and 958 females were regarded as incurable, 21 males and 21 females were out on trial, and 61 males and 66 females were supposed to be curable. 105 male and 166 female patients were discharged during the year.

The following shows the proportion of insane—or, rather, of inmates of lunatic asylums and those out on trial—to the population (exclusive in each case of Maoris) at the end of the years stated:—

1884, 1 insane person to every 393 of population.
1886, „ „ 370 „
1888, „ „ 365 „
1890, „ „ 348 „
1892, „ „ 339 „
1894, „ „ 316 „
1896, „ „ 308 „
1898, „ „ 300 „
1899, „ „ 296 „

It must not be overlooked that the proportions are increased by the admission into the asylums of inebriates, idiots, and others, who should not properly be there.

The Inspector of Hospitals and Asylums, in his report for the year 1899, specifies the causes of insanity in 383 cases (males, 209; females, 174) out of a total of 511 (264 males and 247 females) admitted during that year. In 93 of these (47 males, 46 females) the cause is given as "congenital or hereditary," and in 55 (males, 47; females, 8) as "drink." The proportion of cases due to drink to the total number of specified causes was therefore 14·36 per cent. against a similar proportion of 12·50 in the year 1898.

The proportion of the insane to population in New Zealand for the year 1896 was found to be lower than that which obtained in Victoria, which is more populous than this colony. But the percentage here exceeded that for the other colonies of the Australasian group, where, with the exception of New South Wales, the population is less than in New Zealand.

The figures for 1896 (Coghlan's accepted) are:—

INSANITY PER 10,000 OF POPULATION IN AUSTRALASIAN COLONIES.

Victoria	35·8	South Australia	25·9
New Zealand	32·4	Tasmania	21·8
Queensland	31·0	Western Australia (hospitals only)	13·4
New South Wales	29·6		

Comparing certain European countries, Canada, and the United States of America, the rates of insanity show:—

INSANITY PER 10,000 OF POPULATION IN EUROPE AND AMERICA.

England and Wales	31·4	United States	32·3
Scotland	32·7	Germany	22·8
Ireland	45·1	Austria	21·7
Canada	27·4	Switzerland	11·0

DEAF, DUMB, AND BLIND.

Particulars relating to the deaf, dumb, and blind, as ascertained at the census taken in 1896, are referred to in the Year-book of 1899 (pages 134–137).

SUPPLEMENTARY.

THE subjoined notes on the declining birth-rate in Australia, also on illegitimacy and ante-nuptial conception in New South Wales, are taken from Mr. Coghlan's "Childbirth in New South Wales: a Study in Statistics" (see p. 114, *ante*):—

> The proportion of fertile marriages is probably becoming smaller in most civilised countries. So far as Australia is concerned the decline can be stated with exactness; for, whereas there were nine fertile marriages in every ten contracted a generation ago, there are but eight at the present time. The decline is common to all but the youngest ages, and is more marked as the age at marriage increases. How far this condition is due to prevention, and how far to natural sterility, is a problem which the statistics do not solve. Three sets of facts are available: the first shows that for all women the proportion of fertile marriages is declining; the second, that amongst fertile women the birth-rate is much reduced as compared with what it was twenty years ago; and the third, that Australian women are less fertile than the European women who have emigrated to these shores. As regards the general question of the decline in

fertility, there are many points of illustration. The average birth-rate throughout Australia is now not more than 20 for every hundred women between the ages of 18 and 50 years, while as recently as 1884 the number was 30; so that the decline is equal to one-third. A striking instance of this comes from New South Wales. In 1885 there were 112,546 women of the ages stated; in 1898 there were 165,767; yet the same number of children were born in each year. Looking more closely into the matter, it is found that the birth-rate amongst married women who have not had previous issue has fallen from 33·7 per hundred to only 26·5, whilst for women with previous issue the rate, which was 27·8 in 1887, is now not more than 19. At every stage of child-bearing the reduction in the birth-rate is visible. Taking Australia as a whole, and including New Zealand, the fall in the birth-rate is such that there are 47,000 births less than would have occurred under the rates prevailing as late as ten years ago. So important a development of social life must have far-reaching consequences, although its economic effects are only beginning to be visible.

The couples without children are, in proportion, twice as numerous as they were in the last generation, and the number to a couple has on an average fallen from 5·31 to 4·04—that is, by 127 children to a hundred families. There has been a slight tendency to postpone marriages, the age both of grooms and brides being now somewhat higher than formerly. This, however, does not account for the reduction in the size of families, seeing that the decline is found at every age of marriage. Where the bride's age is 20 the average number of her children was formerly 6·2, now it is 5·3; at age 30, the reduction is from 3·4 to 2·2; at age 39, from 1·1 to 0·5; and so at every age. It must not be supposed, however, that there are no longer any large families; on the contrary, as many as 29 children have been born to the same father, and 21 to the same mother; but these large families are very much less frequent than was once the case.

The marriages of a generation ago produced an average of 5·31 children. To women of British or Irish birth the number of children to a family was 5·6; to Australian women the average was only 4·7. The number for all classes has now fallen to 4 children per marriage, the reduction affecting both the native-born and women of British birth, but more largely the former; and, although the facts are not absolutely conclusive, it would appear that the families of women of Australian birth do not now on an average exceed 3·5. In connection with this extremely important matter there is much room for further investigation. It will probably be found that the women who bear large families can be assigned to one or other of certain distinct classes: those who look upon child-bearing as a condition of the married state to be accepted—cheerfully or not, as the case may be—as amongst the things that are inevitable; those who are influenced in their conduct by considerations of religion; and those who, uninfluenced by motives of prudence or religion, are careless as to the number and fate of their offspring, being ready at any moment to transfer the obligation of their support to the community at large.

The prevalence of births of ante-nuptial conception—a matter hitherto little understood—has now been completely investigated. The number of these births varies with the conditions of every country. In New South Wales, during the past six years, there were 13,366 marriages in respect of which there was ante-nuptial conception, and, as the total number of marriages was 49,641, at least 27 marriages in a hundred followed conception. During the same period the illegitimate births numbered 14,779: there were, therefore, 28,145 cases of conception amongst unmarried women; in 13,366 instances marriage preceded the birth of the child, so that the children were legitimatised in rather more than 47 cases out of 100. A study of the figures of births of ante-nuptial conception makes it obvious that in a very large number of instances premarital intercourse is not an anticipation of marriage already arranged, but that the marriages are forced upon the parties, and would not be entered into were it not for the condition of the woman.

SECTION IV.—REPRESENTATION, AND THE GENERAL ELECTION OF 1899.

REPRESENTATION.

ON the basis of the results of the census of 1896 the colony is divided in accordance with the Representation Act Amendment Acts, 1887 and 1889, into sixty-two districts for purposes of European representation—fifty-eight rural districts having one member each, and four city electorates three members each. The Act of 1889 directed that in computing for electoral purposes the population of the colony 28 per cent. shall be added to the country population—*i.e.*, all persons living outside towns of 2,000 inhabitants and over. The total population of the colony (other than Maoris), with the addition aforesaid, having been ascertained, is then divided by the number of members (70), and the quotient thus obtained forms the quota. The four city electoral districts (which have three members each) are so defined in extent that the population shall be three times the quota. Inasmuch as it would be impossible to divide the country into a given number of districts all having exactly the precise quota of population, the law permits the Commissioners to make an allowance of 750 persons by way of addition to or deduction from the population of rural districts, and of 100 in case of city electorates, with special provision for districts where the population is partly city and partly rural. Due consideration is given to community of interest, facilities of communication, and topographical features, as far as possible, in forming the districts.

"The Representation Act Amendment Act, 1896," provides for two permanent Commissions, called the "North" and "Middle" Island Representation Commissions. These sit together as a joint Commission for the purpose of fixing the number of districts for the North and Middle Islands respectively, but afterwards act separately and independently of one another, the duties and functions of each being confined to their respective island.

The North Island with its adjacent islands now includes 30 electoral districts, having 34 members; the Middle and Stewart Islands having 32 districts and 36 members. In 1893 the North Island returned 31 and the Middle Island 39 members. But movement of population between 1891 and 1896 has resulted in the addition of three members to the North, and a corresponding reduction in the Middle Island.

These districts are, as above stated, for purposes of European representation. But the colony is again divided into four districts for purposes of Maori representation, under the electoral law, each district having one Native member elected by the Maoris; so that the House of Representatives consists of 74 members altogether—70 Europeans and 4 Maoris.

THE ELECTORAL ACTS.

By the principal Act, which came into force in 1893, the great step was taken of admitting women to the franchise. The Amendment Act of 1896 abolished the non-residential or property qualification, with a saving clause in favour of then-existing registrations in respect of such qualification.

[Electors are enrolled on sending to the Registrar a claim and declaration according to a prescribed form. There are no fixed periods for making up fresh electoral rolls, but the rolls are revised and printed before a general election, and also for any district in which a bye-election is to take place. Nor are there any fixed periods for the revising and purifying of the rolls. It is the duty of the Registrar of each electoral district to keep the rolls revised and complete.]

THE GENERAL ELECTION OF 1899.

For European Representatives.

(Polling-day, 6th December, 1899. Number of Polling-places, 1,682.)

Dealing with the population of both sexes, it is found that the total number of persons on the rolls was 373,744, out of a total adult population estimated at 386,146. These results give a proportion of 96·79 per cent. of adults who were registered as electors, as against 95·11 at the previous election in 1896, and 94·98 in 1893. The number of persons who voted was 279,330, or 77·59 per cent. of the number on the rolls, a slightly higher proportion than obtained in 1896, which was 76·13 per cent.

Date of General Election.	Estimated Total Adult Persons.	Number on Rolls.	Proportion of Adult Persons registered as Electors.	Number of Persons who voted.	Proportion of Persons on Rolls who voted.
1893	319,010	302,997	94·98	220,082	75·25*
1896	356,658	339,230	95·11	258,254	76·13
1899	386,146	373,744	96·79	279,330	77·59*

Dealing with men only, the number on the rolls was 210,529, or only 4,244 short of the full number of adult males in the colony as estimated for the day of the election. The males who voted in 1899 were 159,780, or 79·06 per cent. of those on the rolls, against 75·90 per cent. in 1896.

Date of General Election.	Estimated Total Adult Males.	Number on Rolls.	Proportion of Adult Males registered as Electors.	Number who voted.	Proportion of Males on Rolls who voted.
1893	179,539	193,536	†	129,792	69·61*
1896	197,002	196,925	99·96	149,471	75·90
1899	214,773	210,529	98·02	159,780	79·06*

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* Excluding figures for three electorates in which there was no contest.

† The number on rolls was in excess of the estimated adult male population at the date of the election.

The figures relating to women show that a larger proportion (95·24 per cent.) of adults were registered as electors in 1899 than in 1896 (89·13 per cent.), which would indicate an increasing disposition to use the franchise. But the number of women who voted, 119,550, is 75·70 per cent. of the females on the rolls, while in 1896 there were 108,783 who voted, giving the higher proportion of 76·44 per cent.; so that (assuming the figures to be correct) there is no evidence of a greater willingness now on the part of the females to go to the poll.

Date of General Election.	Estimated Total Adult Females.	Number on Rolls.	Proportion of Adult Females registered as Electors.	Number who voted.	Proportion of Females on Rolls who voted.
1893	139,471	109,461	78·48	90,290	85·18*
1896	159,656	142,305	89·13	108,783	76·44
1899	171,373	163,215	95·24	119,550	75·70*

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* Excluding figures for three electorates in which there was no contest.

The following table shows for the different districts the number of electors of each sex on the rolls, with the voters, and the estimated population:—

District.	Number of Members.	Population, 1896 (of Districts proclaimed in September of that Year).	Electors on Roll.		Number of Voters who recorded Votes.	
			Males.	Females.	Males.	Females.
Bay of Islands ..	1	9,841	3,745	1,794	2,657	1,280
Marsden	1	9,661	3,686	1,855	2,397	1,314
Waitemata	1	9,404	3,160	1,716	2,134	1,206
Eden	1	10,469	2,866	2,672	2,397	2,109
City of Auckland ..	3	35,539	9,355	8,981	7,102	6,517
Parnell	1	10,741	2,824	3,255	2,177	2,355
Manukau	1	10,444	2,747	2,591	2,066	1,846
Franklin	1	10,005	2,655	2,141	2,166	1,570
Thames	1	10,079	3,756	2,480	2,729	1,950
Ohinemuri	1	9,467	5,332	2,541	3,679	1,847
Waikato	1	9,894	3,167	2,115	2,517	1,835

District.	Number of Members.	Population, 1896 (of Districts proclaimed in September of that Year).	Electors on Roll.		Number of Voters who recorded Votes.	
			Males.	Females.	Males.	Females.
Bay of Plenty	1	9,405	2,820	1,966	2,353	1,609
Waiapu	1	9,411	3,855	2,251	3,249	1,828
Hawke's Bay	1	9,582	2,991	1,878	*	*
Napier	1	11,275	2,524	2,407	2,052	1,898
Waipawa	1	8,623	3,054	1,852	2,582	1,525
Pahiatua	1	8,517	2,795	1,706	2,345	1,402
Masterton	1	9,504	3,077	2,095	2,423	1,568
Wairarapa	1	8,549	2,874	1,800	2,380	1,478
Egmont	1	9,391	3,356	1,969	2,854	1,384
Taranaki	1	10,586	3,030	2,649	2,584	2,099
Hawera	1	8,586	3,110	2,082	2,461	1,602
Patea	1	8,537	3,037	1,810	2,284	1,298
Wanganui	1	10,267	3,406	2,995	2,755	2,400
Rangitikei	1	9,439	3,569	2,040	2,534	1,182
Palmerston	1	10,198	2,988	2,362	2,282	1,801
Manawatu	1	8,604	2,752	1,750	2,153	1,163
Otaki	1	8,530	2,521	1,713	2,068	1,303
Suburbs of Wellington	1	10,567	3,179	2,947	2,450	2,110
City of Wellington	3	35,516	9,946	8,928	8,533	7,080
City of Nelson	1	10,727	2,572	2,796	2,235	2,286
Motueka	1	9,212	2,469	1,817	1,900	1,190
Wairau	1	10,391	3,222	2,256	2,507	1,692
Buller	1	9,606	3,637	2,225	3,209	1,931
Grey	1	9,880	3,582	2,141	2,828	1,706
Westland	1	9,337	2,829	1,598	*	*
Ashley	1	9,364	2,764	1,705	1,975	1,160
Kaiapoi	1	9,785	2,509	2,287	2,136	1,879
Avon	1	9,691	2,441	2,452	2,046	1,954
City of Christchurch	3	35,528	9,976	10,774	8,026	8,294
Lyttelton	1	10,639	2,516	2,325	1,966	1,621
Riccarton	1	8,974	2,432	2,153	2,004	1,729
Ellesmere	1	9,446	2,285	1,836	1,966	1,450
Selwyn	1	9,270	2,783	1,697	2,107	1,250
Ashburton	1	10,187	3,079	2,149	2,541	1,659
Geraldine	1	9,003	2,438	1,905	2,049	1,488
Timaru	1	10,156	2,628	2,390	2,161	1,818
Waitaki	1	9,527	2,778	1,751	2,209	1,169
Oamaru	1	10,148	2,610	2,271	2,024	1,722
Waihemo	1	9,746	2,620	1,810	*	*
Waikouaiti	1	9,443	2,171	2,086	1,699	1,467
City of Dunedin	3	35,000	9,646	10,438	7,786	7,775
Caversham	1	11,351	3,001	3,150	2,302	2,310
Taieri	1	9,480	2,496	2,025	1,952	1,442
Bruce	1	8,754	2,659	2,006	2,029	1,539
Tuapeka	1	9,290	2,944	1,776	2,210	1,243
Clutha	1	9,814	2,868	2,057	2,222	1,504
Mataura	1	9,767	3,101	2,085	2,416	1,689
Wakatipu	1	9,434	3,059	1,706	2,367	1,254
Wallace	1	9,270	3,007	1,571	2,356	1,217
Invercargill	1	10,757	2,844	2,960	2,358	2,282
Awarua	1	9,511	2,386	1,676	1,831	1,271

* Not contested.

Particulars are given for the four city electorates, where the electors have the right of voting for three members. The number of votes exercisable is nearly fourteen thousand in excess of those recorded, so that some of the electors evidently voted for only one or two candidates:—

City.	Number of Members returned.	Electors on the Rolls.			Voters who recorded Votes.			* Number of Votes recorded.	Number of Votes exercisable by Persons who voted.
		Men.	Women.	Total.	Men.	Women.	Total.		
Auckland ..	3	9,355	8,981	18,336	7,102	6,517	13,619	38,676	40,857
Wellington ..	3	9,946	8,928	18,874	8,533	7,080	15,613	43,694	46,839
Christchurch ..	3	9,976	10,774	20,750	8,026	8,294	16,320	43,062	48,960
Dunedin ..	3	9,646	10,438	20,084	7,786	7,775	15,561	43,980	46,683
Total ..	12	38,923	39,121	78,044	31,447	29,666	61,113	169,412	183,339

A return is added showing the number of votes recorded for each candidate:—

Electoral Districts and Names of Candidates.	Number of Votes recorded.	
	For each Candidate.	Total.
Bay of Islands:		
Houston, R. M. ..	2,002	
McLeod, N. A. ..	1,935	3,937
Marsden:		
Thompson, R. ..	2,205	
Alderton, G. E. ..	891	
Mackesy, C. E. R. ..	615	3,711
Waitemata:		
Monk, R.	1,713	
Ford, E.	1,263	
Newman, C. ..	364	3,340
Eden:		
Bollard, J.	2,255	
Niccol, M.	2,251	4,506
City of Auckland:		
Napier, W. J. ..	6,097	
Fowlds, G.	5,595	
Crowther, W.* ..	4,751	
Holland, J. J. ..	4,657	
Hobbs, R.	4,647	
Baume, F. E. ..	3,792	
Rosser, A.	3,511	
Vaile, S.	2,456	
Regan, J.	1,470	
French, R.	1,366	
Quinlan, P.	334	38,676
Parnell:		
Lawry, F.	2,263	
Campbell, H. ..	1,423	
Allen, J. C.	846	4,532
Manukau:		
O'Rorke, Sir G. M. ..	1,967	
Taylor, J. E. ..	936	
Buckland, W. F. ..	516	
Hull, F.	493	3,912
Franklin:		
Massey, W. F. ..	2,458	
Wilson, W. Findlay ..	1,278	3,736
Thames:		
McGowan, J. ..	2,573	
Greenslade, H. J. ..	1,389	
Taylor, E. H. ..	717	4,679
Ohinemuri:		
Palmer, Jackson ..	1,765	
Moss, E. G. B. ..	1,470	
McCullough, W. ..	795	
Stewart, M. J. ..	762	
Deeble, W.	524	
De Bakker, L. ..	206	
Drumm, E. J. ..	4	5,526
Waikato:		
Lang, F. W. ..	2,337	
Hosking, J.	2,015	4,352

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* Died, 14th March, 1900. J. H. Witheford elected, 27th April, 1900.

Electoral Districts and Names of Candidates.	Number of Votes recorded.	
	For each Candidate.	Total.
Bay of Plenty:		
Herries, W. H.	2,110	
Lundon, D.	1,852	3,962
Waiapu:		
Carroll, J.	3,153	
FitzRoy, C. A.	1,824	
Dunlop, J. C.	100	5,077
Hawke's Bay:		
Russell, W. R.	†	†
Napier:		
Fraser, A. L. D.	1,994	
McLean, R. D. D.	1,956	3,950
Waipawa:		
Hall, C.	2,332	
Hunter, G.	1,775	4,107
Pahiatua:		
O'Meara, J.	2,058	
Smith, G. H.	1,689	3,747
Masterton:		
Hogg, A. W.	2,591	
Cockburn-Hood, C. E.	1,400	3,991
Wairarapa:		
Hornsby, J. T. M.	1,974	
Buchanan, W. C.	1,818	
Phillips, Coleman	66	3,858
Egmont:		
Symes, W.	2,253	
Monkhouse, W.	1,985	4,238
Taranaki:		
Smith, E. M.	2,405	
Brown, H.	2,278	4,683
Hawera:		
McGuire, F.	1,740	
Major, C. E.	1,685	
Astbury, D. L. A.	638	4,063
Patea:		
Hutchison, G.	1,853	
Remington, A. E.	1,729	3,582
Wanganui:		
Willis, A. D.	2,878	
Carson, G.	2,169	
Murphy, J.	108	5,155
Rangitikei:		
Lethbridge, F. Y.	1,985	
Bagnall, J. J.	1,453	
Gascoigne, E.	278	3,716
Palmerston:		
Pirani, F.	1,980	
Wood, W. T.	1,465	
Buick, D.	638	4,083
Manawatu:		
Stevens, J.	1,732	
Bruce, R. C.	1,584	3,316
Otaki:		
Field, H. A.*	1,838	
Morrison, C. B.	1,533	3,371
Suburbs of Wellington:		
Wilford, T. M.	2,298	
Newman, A. K.	1,762	
Kirk, R. C.	491	
Knight, R. G.	9	4,560
City of Wellington:		
Hutcheson, J.	7,436	
Atkinson, A. R.	6,703	
Fisher, G.	6,442	
Macdonald, T. K.	6,320	
Hislop, T. W.	6,297	
Jellicoe, E. G.	4,751	
Luke, C. M.	3,812	
Carmichael, T.	1,004	
Earnshaw, W.	851	
Duncan, D. B.	78	43,694
City of Nelson:		
Graham, J.	2,551	
Hursthouse, R.	1,970	4,521
Motueka:		
McKenzie, R.	2,078	
Moffatt, W. J.	1,012	3,090
Wairau:		
Mills, C. H.	2,786	
Clifford, W. L.	1,413	4,199
Buller:		
Colvin, J.	2,846	
O'Regan, P. J.	2,294	5,140
Grey:		
Guinness, A. R.	2,660	
Hannan, M.	1,874	4,534
Westland:		
Seddon, Rt. Hon. R. J.	†	†
Ashley:		
Meredith, R.	1,943	
Caverhill, T. H.	1,192	3,135
Kaiapoi:		
Buddo, D.	2,186	
Moore, R.	1,705	
Verrall, J. M.	124	4,015
Avon:		
Tanner, W. W.	2,074	
Rhodes, A. E. G.	1,926	4,000

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* Died, 10th December, 1899; W. H. Field elected, 11th January, 1900. † Not contested.

Electoral Districts and Names of Candidates.	Number of Votes recorded.	
	For each Candidate.	Total.
City of Christchurch:		
Collins, W. W.	7,688	
Lewis, C.	6,346	
Ell, H. G.	6,149	
Taylor, T. E.	5,928	
Smith, G. J.	5,413	
Taylor, C.	5,212	
Donnelly, M.	4,427	
Greig, J.	1,899	43,062
Lyttelton:		
Laurenson, G.	2,700	
Jacques, W.	887	3,587
Riccarton:		
Russell, G. W.	1,867	
Rolleston, W.	1,866	3,733
Ellesmere:		
Rhodes, R. H	1,760	
Montgomery, W. H.	1,656	3,416
Selwyn:		
Hardy, C. A. C.	1,308	
Rennie, J.	1,168	
Barrett, J.	454	
Wilson, K.	427	3,357
Ashburton:		
McLachlan, J.	2,027	
Harper, C. J.	1,225	
Maslin, W. S.	727	
McKeague, J.	221	4,200
Geraldine:		
Flatman, F. R.	2,331	
McIntosh, C. N.	775	
Fraser, J.	431	3,537
Timaru:		
Hall Jones, W.	3,091	
Keith, J. S.	816	
Mahoney, J.	72	3,979
Waitaki:		
Steward, W. J.	2,139	
Campbell, J.	712	
Boreham, S.	527	3,378
Oamaru:		
Duncan, T. Y.	2,500	
Macpherson, J. A.	1,246	3,746
Waihemo:		
McKenzie, J.	*	*
Waikouaiti:		
Allen, E. G.	1,749	
White, J.	1,417	3,166
City of Dunedin:		
Millar, J. A.	9,045	
Arnold, J. F.	8,290	
Barclay, A. R.	7,363	
Mackenzie, M. J. S.	6,726	
Sligo, A.	6,415	
Haynes, C.	4,919	
Chapman, C. R.	1,222	43,980
Caversham:		
Morrison, A.	2,860	
Warren, W. H.	1,752	4,612
Taieri:		
Carncross, W. C. F.	1,927	
Begg, A. C.	1,467	3,394
Bruce:		
Allen, J.	1,966	
Anderson, J. C.	1,602	3,568
Tuapeka:		
Bennet, J.	1,758	
Rawlins, C. C.	1,372	
Fraser, A.	323	3,453
Clutha:		
Thomson, J. W.	1,809	
McLeod, F.	1,312	
Malcolm, A. S.	605	3,726
Mataura:		
McNab, R.	2,132	
Raymond, J. W.	1,973	4,105
Wakatipu:		
Fraser, W.	1,895	
Kelly, J.	1,726	3,621
Wallace:		
Gilfedder, M.	1,896	
Carmichael, A. M.	1,677	3,573
Invercargill:		
Hanan, J. A.	2,451	
Kelly, J. W.	2,189	4,640
Awarua:		
Ward, J. G.	2,417	
Murray, W. T.	685	3,102

The Lyttelton poll was taken on the 15th December, 1899, and the Rangitikei poll on the 20th December, 1899.

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* Not contested.

—	1899.	1896.	1893.
Number of votes recorded for members elected ..	202,324	184,929	153,663
Number of votes recorded for defeated candidates	185,305	174,475	149,413
Total votes recorded* ..	387,629	359,404	303,076
Number of names on rolls in districts uncontested	13,726	..	10,539
Number of names on rolls in districts where elections were contested	360,018	339,230	292,458
Total number of electors on rolls	373,744	339,230	302,997
Total population at last census	703,119	703,119	626,359

* Total number of electors who recorded their votes: 279,330 in 1899, 258,254 in 1896, and 220,082 in 1893.

OCCUPATIONS OF MEMBERS OF HOUSE OF REPRESENTATIVES.

The occupations of members elected in 1896 and 1899 show a reduction in the number of the representatives of the farmer class. The table, however, shows that farmers or runholders still furnish more members than any other class of occupation. There were twenty of these (besides seven given as "settlers" or "gentlemen") returned in 1899. There were nine barristers or solicitors, and eight journalists:—

Occupations.	1896.	1899.
Professional—		
Barrister, solicitor	5	9
Journalist	9	8
Mining advocate, interpreter, lecturer, teacher ..	3	4
Commercial—		
Auctioneer	1	1
Director of financial company	..	1
Native agent	..	1
Stationer, bookseller, draper, grocer, butcher ..	3	6
Merchant, iron merchant, timber merchant ..	3	2
Storekeeper	1	2
Commission agent, clerk, accountant	3	2
Industrial—		
Tailor, shoemaker	2	2
Mill-owner, ship-rigger, builder, metallurgical engineer, mine-manager	4	2
Farmer	11	13
Sheep-farmer, runholder, grazier, stock-owner ..	14	7
Others—		
Settler, gentleman	8	7
Contractor	3	3

For Maori Representatives.

(Polling-day, 19th December, 1899.)

Of a Maori population amounting to 39,854 persons at the census of 1896, 13,628 voted at the general election held in December, 1899, an increase of 620 on the number who voted at the election of 1896. In 1893 the voters numbered 11,269, or 1,739 persons fewer than in 1896, when 13,008 Maoris recorded their votes. As the Native population did not increase between 1891 and 1896, but rather diminished somewhat, it would appear that Maoris are taking more interest as to their representation in Parliament than formerly, or perhaps there is now more convenience for attending to vote, or better knowledge of political affairs. The numbers of voters for the several districts in December, 1899, were:—

Electoral Districts.	Population: Census 1896.			Number who voted.	Per Cent. of Population at all Ages.
	Males.	Females.	Totals.		
North Island—					
Northern Maori ..	5,165	4,010	9,175	2,265	24·69
Eastern Maori ..	6,931	6,064	12,995	5,661	43·56
Western Maori ..	8,247	6,893	15,140	5,096	33·66
Middle Island—					
Southern Maori ..	1,330	1,214	2,544	606	23·82
Totals ..	21,673	18,181	39,854	13,628	34·20

The votes recorded for each candidate were:—

Electoral Districts and Names of Candidates.	Number of Votes recorded. For each Candidate.	Total.
Northern Maori Electoral District:		
Hone Heke	1,453	
Mutu Kapa	367	
Henry Papa Ururoa (Henry Flavel) ..	225	
Keritoki te Ahu ..	126	
Poata Uruamo ..	94	2,265
Eastern Maori Electoral District:		
Wiremu Pere ..	2,294	
Mohi te Atahikoia ..	1,387	
Hurinui Apanui ..	1,316	
Kereru Numia ..	331	
Tare Mete	207	
Tamati Haweti ..	126	5,661
Western Maori Electoral District:		
Henare Kaihau ..	2,685	
Te Heuheu Tukino ..	873	
Te Aohau Nikitini ..	581	
Waata Hipango ..	440	
Hone Patene ..	199	
Takarangi Mete Kingi	173	
Wiremu Ngapaki ..	145	5,096
Southern Maori Electoral District:		
Tame Parata ..	387	
Taituha Hape ..	219	606
Total.. ..		13,628

On the succeeding page will be found a tabular statement giving the results of each general election since the year 1853 for purposes of European representation.

General Elections for European Representatives held from the Year 1853.

Parliament.	Date of General Election.	Number of Names on Roll of Electors.	Number of Members returned.	Number of Members returned unopposed.	Number of Votes recorded (or of Voters recording Votes).	Population of the Colony at end of Year.	Average Number of		
							Persons to each Member.	Persons to each Elector.	Electors to each Member.
First	1853	[1] 5,934	37	*	*	30,000	811	5·1	160
Second	1855	[2] 10,324	37	*	*	37,192	1,005	3·6	279
Third	1861	13,466	53	*	*	79,711	1,504	5·9	254
Fourth	1866	[3] 33,338	72	*	*	190,607	2,647	5·7	463
Fifth	1871	47,275	74	*	*	248,400	3,357	5·3	639
Sixth	1875	61,755	84	*	*	375,856	4,474	6·1	735
Seventh ..	1879	82,271	84	14	43,776	463,729	5,521	5·6	979
Eighth	1881	120,972	91	11	69,985	500,910	5,505	4·1	1,329
Ninth	1884	137,686	91	11	74,672	564,304	6,201	4·1	1,512
Tenth	1887	175,410	91	5	111,911	603,361	6,630	3·4	1,928
Eleventh ..	1890	183,171	70	6	136,337	625,508	8,936	3·4	2,617
Twelfth.. ..	1893	[4]302,997	70	3	[4][5]220,082	672,265	9,604	2·2	4,328
Thirteenth ..	1896	[4]339,230	70	..	[4][5]258,254	714,162	10,202	2·1	4,852
Fourteenth ..	1899	[4]373,744	70	3	[4][5]279,330	756,505	10,807	2·0	5,339

* Information not obtainable.

[1] Including 100, the estimated number in Akaroa District, for which there is no return.

[2] Including 800, the estimated number in the electorates of Town of New Plymouth, Grey and Bell, and Omata, for which districts there are no returns.

[3] Electors for the Electoral District of "The Otago Goldfields" not included

[4] Men and women.

[5] Voters recording votes.

SECTION V.—IMPORTS: CUSTOMS AND EXCISE REVENUE.

IMPORTS.

THE quantities and values of imports used in making up the figures given in this portion of the statistical report are obtained from Customs entries, verified where necessary, as with goods subject to an *ad valorem* duty, by examination. For exports, the "free on board in New Zealand" value is given; but, as regards the main items, the Collector of Customs examines carefully the amounts stated, and compares them with current price-lists, to prevent any over-estimate. Goods transhipped at a foreign port are regarded as imported from the country where they were originally shipped, and exports as destined for the country where it is intended to land them. The countries named, however, may not be those of origin or destination, as no attempt is made to trace the goods beyond the ports disclosed by the documents presented to the Customs. Very little cargo *in transitu* passes through New Zealand.

The total declared values of the imports in 1899 amounted to £8,739,633, being an increase on the corresponding total in 1898 of £509,033. These figures, however, include specie. The value of coin brought into the colony in 1899 was £125,977, against £19,191 in the previous year, and if these amounts are excluded, the increase on the values of all other articles will be found to reach the sum of £402,247.

The value of imports for each of the past twelve years was:—

Year.	Imports, inclusive of Specie. £	Imports, exclusive of Specie.
1888	5,941,900	5,430,050
1889	6,308,863	5,980,583
1890	6,260,505	5,928,625
1891	6,503,849	6,431,101
1892	6,943,056	6,742,544
1893	6,911,515	6,494,279
1894	6,788,020	5,990,177
1895	6,400,129	6,115,953
1896	7,137,320	7,035,379
1897	8,055,223	7,994,201
1898	8,230,600	8,211,409
1899	8,739,633	8,613,656

It will be seen that the value of imports, exclusive of specie, rose from £5,430,050 in 1888 to £6,742,544 in 1892, then fell to £5,990,177 in 1894, after which there ensued a steady advance year by year to £8,613,656 in 1899. The movement for the period 1894–99 is a rise at the rate of nearly 44 per cent. in money value, or a sum of £2,623,479; for the ten years 1890–99 the increase is no less than £2,685,031, or 45·29 per cent. In quantities of various imports the increases vary, and full particulars of every kind of article imported in 1899 are to be found in detail further on, which may be critically examined with those in similar tables for 1898 and 1897, given in the previous Year-books.

It is desirable to consider not only the total value of the import trade for different years by comparing these figures, but to ascertain the rates *per capita* of population, to judge whether the imports are relatively greater or less than they have been. The fairest comparisons are from calculations made after deducting specie imported, for in the year 1894, as an instance, no less than £797,843 was brought to the colony in coin.

The figures for each year from 1888 stand thus:—

Years.	Imports per head of mean Population, excluding Maoris.					
	Including Specie.			Excluding Specie.		
	£	s.	d.	£	s.	d.
1888	9	16	4	8	19	5
1889	10	5	6	9	15	6
1890	10	0	2	9	11	0
1891	10	6	6	10	4	3
1892	10	16	3	10	9	11
1893	10	9	0	9	16	5
1894	9	19	11	8	16	5
1895	9	4	10	8	16	8
1896	10	1	11	9	19	1
1897	11	3	3	11	1	7
1898	11	3	7	11	3	1
1899	11	13	1	11	9	8

Using the figures exclusive of the specie, it will be seen that, though comparisons for years since 1888 do not show by any means a steady rise since that year, the position is that whereas the imports proper were only £8 19s. 5d. per head of population in the first period of the table, they had increased by £2 10s. 3d. per head in 1899, and increase is observed in each year's figures since 1894, amounting to £2 13s. 3d. for the last six years.

By means of the accompanying table, in which the articles imported are arranged in groups according to their nature, the increases in value can be traced to their specific heads:—

IMPORTS FOR FIVE YEARS.

Grouped Principal Articles imported.	1895.	1896.	1897.	1898.	1899.
	£	£	£	£	£
Apparel and slops ..	316,179	370,516	362,389	354,940	393,689
Boots and shoes ..	122,462	127,985	132,203	130,912	151,593
Cotton piece goods ..	374,366	434,673	414,673	417,733	447,495
Drapery ..	288,995	336,839	344,539	343,820	395,696
Haberdashery ..	84,625	68,473	70,853	85,985	84,808
Hats and caps ..	54,193	58,310	63,310	66,416	68,184
Hosiery ..	62,237	82,984	83,796	75,736	90,545
Linen manufactures ..	48,029	57,325	57,039	56,572	69,167
Millinery ..	24,591	28,866	32,245	36,074	36,932
Silks ..	59,189	69,742	74,400	79,910	87,639
Woollens ..	187,782	254,580	293,449	286,911	297,387
Totals ..	1,622,648	1,890,293	1,928,896	1,935,009	2,123,135
Agricultural implements ..	4,599	6,894	11,095	17,234	17,063
Cutlery ..	15,658	17,384	19,636	22,722	19,764
Hardware and ironmongery ..	164,745	182,313	228,465	248,665	255,701
Rails and railway bolts, &c.	41,301	29,592	90,489	42,773	63,557
Iron and steel, pig, wrought, wire, &c. ..	330,514	502,725	529,204	554,124	632,182
Machinery ..	131,843	251,905	368,416	422,011	405,551
Nails ..	25,965	32,304	33,279	36,792	31,363
Railway plant .	5,687	3,062	46,082	57,224	63,807
Sewing machines ..	22,166	24,641	21,542	30,618	30,801
Tools (artificers') ..	39,124	44,386	57,903	70,631	59,066
Totals ..	781,602	1,095,206	1,406,111	1,502,794	1,578,855
Sugar ..	389,609	422,134	373,407	425,270	354,925
Tea ..	173,343	166,860	178,350	183,717	183,691
Totals ..	562,952	588,994	551,757	608,987	538,616
Beer ..	42,676	35,123	39,614	37,844	39,166
Spirits* ..	164,166	160,648	178,344	187,020	215,685
Tobacco ..	123,843	149,905	164,889	161,836	184,173
Wine ..	41,109	40,879	50,202	48,514	51,640
Totals ..	371,794	386,555	433,049	435,214	490,664

* Includes methylated and perfumed spirits, and spirits of wine.

IMPORTS FOR FIVE YEARS—*continued.*

Group of Principal Articles imported.	1895.	1896.	1897.	1898.	1899.
	£	£	£	£	£
Paper	110,539	117,577	127,980	133,901	135,482
Printed books ..	101,958	111,344	116,485	109,961	132,260
Stationery	77,595	86,628	92,871	98,469	100,875
Totals.. ..	290,092	315,549	337,336	342,331	368,617
Bags and sacks ..	69,935	55,961	104,401	111,116	123,596
Coals	97,621	94,138	98,139	105,223	92,815
Fancy goods	71,273	89,072	100,824	103,786	110,114
Fruits (including fresh, preserved, bottled, dried)	125,250	145,016	183,133	181,447	180,590
Oils	134,913	128,138	163,793	162,523	126,967
Other imports (excluding specie).. ..	1,987,873	2,246,457	2,686,762	2,722,979	2,879,687
Total Imports (excluding specie)	6,115,953	7,035,379	7,994,201	8,211,409	8,613,656
Specie imported ..	284,176	101,941	61,022	19,191	125,977
Total Imports ..	6,400,129	7,137,320	8,055,223	8,230,600	8,739,633

Of £8,613,656 the total value of goods imported during 1899, the chief items were as under:—

Articles.	Value. £	Proportion per Cent.
Clothing, drapery, &c.	2,123,135	24·65
Metal, machinery, and implements..	1,578,855	18·33
Tea and sugar	538,616	6·25
Wine, beer, spirits, and tobacco ..	490,664	5·70
Paper, books, and stationery ..	368,617	4·28
Other imports	3,513,769	40·79
	8,613,656	100·00

The declared value of the clothing, drapery, &c., imported increased from £1,935,009 in 1898 to £2,123,135 in 1899. In 1895 the value of the import was £1,622,648. The iron, machinery, and implements imported in 1899 were valued at £1,578,855, an increase of £797,253 on the corresponding figures for 1895 (£781,602). The value of sugar and tea imported in 1899 shows a falling off, when compared with 1898, of £70,371, nearly the whole of which is due to a lessened import of sugar, the value of tea imported in each year being almost identical. Beer, wine, spirits, and tobacco, on the other hand, show a rise of £55,450, from £435,214 in 1898 to £490,664 in 1899.

To the total value of "Other imports (excluding specie)," in 1899 (£2,879,687), shown in the table above, arms, ammunition, and explosives contributed a sum of £91,118; bicycles, tricycles, and fittings, £112,615; drugs, chemicals, and druggists' wares,

£186,598; patent medicines, £34,193; manures, £116,395; musical instruments, £86,405; glass and glassware, £104,524; earthenware, £45,421; floorcloth and oilcloth, £65,215; furniture and upholstery, £48,135; cement, £38,169; leather and leather manufactures, £79,968; seeds, £66,563; and timber, £83,084.

Goods imported by means of the "Parcels Post" system during 1899 were valued at £70,094.

VALUE OF FREE AND DUTIABLE IMPORTS.

The values of the imports into New Zealand during the years 1898 and 1899 are given in the next table, classified according to the duties to which they were liable, and arranged so as to show the declared value of goods on which specific or *ad valorem* duties at various rates are payable, and of those admitted free of duty:—

Duties to which Imports liable.	Value of Imports, 1898.		Value of Imports, 1899.	
	£	£	£	£
Specific duties		2,126,685		2,134,978
Ad valorem duties—				
5 per cent.	254,409		234,022	
10 per cent.	131,685		147,998	
15 per cent.	37,684		34,461	
20 per cent.	1,857,460		2,013,422	
22½ per cent.	131,091		153,106	
25 per cent.	775,219		844,925	
40 per cent.	37,219		35,187	
Various	2,284		2,464	
Parcels post (various) ..	57,627		70,094	
		3,284,678		3,535,679
Duty-free (excluding specie)	..	2,800,046	..	2,942,999
Specie imported	..	19,191	..	125,977
Totals	..	£8,230,600	..	£8,739,633

The proportions of free and dutiable goods imported during 1897, 1898, and 1899 are compared with similar figures for 1894, the year preceding that in which the altered tariff came into force:—

	1894.	1897.	1898.	1899.
Merchandise—	£	£	£	£
Free	1,871,772	2,675,931	2,800,046	2,942,999
Dutiable	4,118,405	5,318,270	5,411,363	5,670,657
Imports (less specie) ..	5,990,177	7,994,201	8,211,409	8,613,656
	£	£	£	£
Total net duty received	1,572,467	1,915,693	1,965,404	2,046,452
Duty, per cent. of imports—	Per Cent.	Per Cent.	Per Cent.	Per Cent.
(*a*.) On dutiable imports ..	38·18	36·02	36·32	36·09
(*b*.) On all merchandise ..	26·25	23 95	23·94	23·76

Sugar.

The value of sugar (including glucose, molasses, and treacle) imported in 1899 was £354,925, a decrease of £70,345 on the amount for 1898 (£425,270). The value of this import for the last three years has averaged only £384,534 per annum; but for the three years, 1882, 1883, and 1884, the average, with a much smaller population, was £615,207 for each year. The smaller average amount for the last three years is due, not so much to a reduction in the quantity imported as to the fall in the price of sugar, and partly to the fact that the proportion of refined to raw sugar has vastly decreased.

The following figures, giving the consumption per head of sugar in the Australasian Colonies, are, saving those for New Zealand—and excluding a proportion (30 lb. per head) deducted on account of Maoris—taken from Mr. Coghlan's "Seven Colonies of Australasia, 1898–99." The figures stating the consumption of tea, given further on, are taken from the same source:—

Annual Consumption of Sugar per Head in the Australasian Colonies.

	Lb.		Lb.
Queensland	110·5	New South Wales	95·9
Western Australia	106·3	Victoria	92·9
New Zealand	98·5	Tasmania	82·9
South Australia	97·9		

Tea.

The quantity of tea entered for consumption in 1899 was 4,798,503 lb. Supposing Maoris to use, on an average, 1 lb. per head per annum, the consumption of tea per head of the population, exclusive of Maoris, would be 6·3 lb. in 1899.

Annual Consumption of Tea per Head in the Australasian Colonies.

	Lb.		Lb.
Western Australia	9·5	Victoria	7·2
Queensland	7·8	Tasmania	6·4
New South Wales	7·8	New Zealand	6·3
South Australia	7·7		

Beer, Spirits, and Wine.

During 1899 excise duty was paid on 6,261,200 gallons of beer; and 175,940 gallons of beer, 515,384 gallons of spirits, and 111,049 gallons of wine were entered at the Customs for home consumption.

The actual quantity of beer made and used in the colony has increased from 4,243,760 gallons in 1886 to 6,261,200 gallons in 1899:—

Beer manufactured in New Zealand on which Excise Duty was paid.

	Gal.		Gal.
1886	4,243,760	1893	4,873,600
1887	4,264,160	1894	4,807,360
1888	4,050,560	1895	4,936,400
1889	4,402,480	1896	5,382,960
1890	4,676,240	1897	5,741,200
1891	4,567,920	1898	6,013,120
1892	4,752,720	1899	6,261,200

The following table gives the consumption per head of alcoholic liquors by the people, excluding and including Maoris, showing separately the proportions of beer, wine, and spirits from 1883 to 1899. To the amount of beer manufactured in the colony in each year on which excise duty was paid has been added the amount brought into consumption from imports:—

Year.	Beer.		Spirits.		Wine.	
	Excluding Maoris.	Including Maoris.	Excluding Maoris.	Including Maoris.	Excluding Maoris.	Including Maoris.
	Gal.	Gal.	Gal.	Gal.	Gal.	Gal.
1883	9·435	8·709	1·088	1·005	0·315	0·291
1886	7·861	7·333	0·820	0·765	0·212	0·198
1889	7·624	7·136	0·598	0·560	0·176	0·165
1892	7·807	7·328	0·708	0·664	0·174	0·163
1895	7·421	6·996	0·629	0·593	0·135	0·127
1898	8·427	7·995	0·668	0·634	0·146	0·139
1899	8·583	8·150	0·687	0·653	0·148	0·141

A comparison of the annual consumption of beer, spirits, and wine per head in the Australasian Colonies is added:—*

—	Beer.	Spirits.	Wine.	—	Beer.	Spirits.	Wine.
	Gal.	Gal.	Gal.		Gal.	Gal.	Gal.
Queensland ..	12·36	0·91	0·60	Western Australia	21 50	2·21	1·38
New South Wales	9 14	0·73	0·61	Tasmania ..	7·19	0·38	0·09
Victoria ..	11·43	0·73	1·35	New Zealand (including Maoris)	7·99	0·63	0·13
South Australia ..	9·13	0·40	1·98				

* See "The Seven Colonies of Australasia, 1897-98.

TOBACCO.

The tobacco entered for consumption in 1899 was 1,742,812 lb., and the consumption per head of population, including Maoris, 2·21 lb.

AVERAGE ANNUAL CONSUMPTION PER HEAD OF TOBACCO IN VARIOUS COUNTRIES.

	Lb.		Lb.
Holland	6·92	New Zealand	2·21
United States	4·40	Victoria	2·15
Turkey	4·37	Canada	2·11
Western Australia	4·07	France	2·05
Austria-Hungary	3·77	South Australia	1·92
Denmark	3·70	Sweden	1·87
Switzerland	3·24	Tasmania	1·80
Belgium	3·15	Spain	1·70
Germany	3·00	United Kingdom	1·41
Queensland	2·96	Italy	1·34
New South Wales	2·57	Russia	1·23

IMPORTS FROM DIFFERENT COUNTRIES.

The imports from the United Kingdom to New Zealand in 1899 were valued at £5,526,645, or an increase of £377,812 on the value of goods imported from the Home country during the previous year. From British colonies and possessions the imports were £2,036,797, an increase of £108,980 on the amount in 1898.

The following are the values of imports from different countries or places in 1899 and 1898, given in the order of the increase or decrease from each:—

Country, Colony, State, &c.	1899. £	1898. £	Increase. £
United Kingdom	5,526,645	5,148,833	377,812
New South Wales	748,201	641,804	106,397
Victoria	407,078	332,422	74,656
Holland	21,643	10,780	10,863
Bengal	212,654	201,843	10,811
Pacific Islands	52,249	43,450	8,799
Germany	160,605	153,102	7,503
Greece	13,075	6,077	6,998
Belgium	44,561	38,013	6,548
Singapore	19,884	16,303	3,581
Ceylon	116,833	113,813	3,020
Italy	6,856	4,519	2,337
Asia Minor	11,354	9,043	2,311
West Indies	2,344	423	1,921
Philippine Islands	6,632	5,251	1,381
South Australia	30,165	28,802	1,363
Japan	40,543	39,476	1,067
Switzerland	4,454	3,756	698
Canada	55,021	54,434	587
Burmah	2,959	2,508	451
Western Australia	668	273	390
Norway	475	146	329
Sweden	6,199	5,896	303
Egypt	518	301	217
Cape Colony	206	63	143
West Indies (British)	141	..	141
Canary Islands	131	15	116
Portugal	2,238	2,154	84
Sicily	79	..	79
Mexico	41	..	41
Malta	40	..	40
Turkey	37	..	37
Bombay	77	67	10
South African Republic	5	2	3
Argentine Republic	2	..	2
	£	£	Decrease. £
Fiji	250,706	320,886	70,180
United States (East Coast)	687,906	700,555	12,649
United States (West Coast)	87,403	99,856	12,453
British Columbia	8,229	17,057	8,828
Hongkong	18,363	26,615	8,252
Tasmania	31,991	35,821	3,830
China	4,516	6,301	1,785
France	19,481	20,693	1,212
Queensland	118,730	119,743	1,013
Spain	979	1,453	474
Denmark	919	1,352	433
Austria	946	1,321	375
Norfolk Island	569	750	181
Malden Island	13,973	14,100	127
Newfoundland	..	98	98

Country, Colony, State, &c.	1899. £	1898. £	Decrease. £
Madras ..	310	385	75
New Brunswick ..	..	19	19
Russia ..	..	14	14
Falkland Islands	..	4	4
Natal ..	4	7	3
Java ..	..	1	1

IMPORTS, BY PROVINCIAL DISTRICTS.

The values of imports in each provincial district during 1890 and 1899 were as under:—

	1890. £	1899. £
Auckland	1,406,477	2,258,584
Taranaki	24,575	73,998
Hawke's Bay	162,097	212,875
Wellington	1,282,821	2,181,582
Marlborough	19,547	13,440
Nelson ..	151,422	155,325
Westland	93,426	54,929
Canterbury	1,269,572	1,569,239
Otago ..	1,836,754	2,149,567

The value of imports by parcel-post (£13,834 in 1890 and £70,094 in 1899) must be added to the above figures in order to make up the totals (including specie) of £6,260,525 and £8,739,633 for the respective years.

IMPORTS, NORTH AND MIDDLE ISLANDS.

Separating the value of the imports for the North Island from that of the Middle Island, it is found that whereas in 1890 the former received imported goods to the value of £2,875,970, against £3,370,721 for the Middle Island, in the year 1899 the North Island imports exceeded those of the other, the values being respectively £4,727,039 and £3,942,500, or an excess for the North Island of £784,539, or 19·90 per cent.

DETAILS OF ALL ARTICLES OF IMPORT.

Details of all imports for 1899, giving quantities and values of articles introduced into the colony, with the amounts entered for Home consumption, and the amount of duty received, are next shown:—

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING THE YEAR 1899.

(For rates of Duty, see Tariff, pp. 71 to 85.)

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Acid—		£		£ s. d.
Acetic	291,275 lb.	3,229	351,153 lb.	2,194 13 6
Carbolic	40,725 „	474	..	..
Salicylic	2,411 „	234	..	..
Sulphuric	344,927 „	2,804	..	..
Tartaric	87,288 „	4,797	84,258 lb.	351 1 6
Unenumerated ..	82,620 „	1,577	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Alkali—				
Potash and caustic potash	2,855 cwt.	3,179	..	..
Soda ash	8,320 "	2,557	..	..
Soda, carbonate and bicarbonate	11,233 "	4,016	11,028 cwt.	551 8 0
Soda, caustic	9,903 "	5,984	..	..
Soda, crystals	37 "	15	37 cwt.	3 14 9
Soda, silicate	3,454 "	1,076	..	..
Unenumerated	4,839 "	2,459	..	..
Alum	1,949 "	640	..	..
Animals, Living—				
Birds	380 No.	117	..	..
Cattle, horned	5 "	658	5 No.	2 10 0
Cats	4 "	20	..	..
Dogs	100 "	1,044	..	..
Goats	2 "	10	..	..
Horses	442 "	13,630	432 No.	432 0 0
"	13 "	820	..	..
Pigs	13 "	61	..	..
Poultry	273 "	479	..	..
Sheep	253 "	3,669	..	..
Other kinds	2 "	52	..	..
Apparel and slops n.o.e.	..	391,526	£384,796	96,198 18 0
"	..	1,064	..	..
Apparel made to the order of residents in the colony	..	1,092	£1,092	436 16 0
Ditto	..	7	..	..
Arms, ammunition, and explosives—				
Accoutrements	..	723	..	..
Caps, percussion	5,079,383 No.	867	..	..
Cartridges, shot, 10- to 24-bore	3,174,969 "	10,351	3,059,400 No.	2,294 11 0
Cartridges n.o.e.	3,336,110 "	2,160	£2,154	430 15 3
"	1,106,500 "	9,207	..	..
Cartridge-cases	296,500 "	463	296,100 No.	111 0 5
Detonators for dynamite	1,560,000 "	2,091	..	..
Dynamite	75,000 lb.	4,913	..	..
Firearms	5,306 No.	8,523	£8,394	1,698 17 2
"	3,100 "	7,771	..	..
Fuse	147,628 lb.	4,026	..	..
Lithofracteur and cordite	158,350 "	9,713	..	..
Ordnance stores	..	4,454	..	..
Powder, blasting	365,715 lb.	8,422	..	..
Powder, sporting	22,306 "	2,616	20,432 lb.	510 16 2
"	6,000 "	294	..	..
Shot	605 cwt.	1,318	597 cwt.	298 9 7
Swords	82 No.	81	..	..
Other explosives	200,000 lb.	12,588	..	..
Unenumerated	..	537	..	..
Asphalt	575 cwt.	113	..	..
Bacon and hams	2,524 lb.	63	2,539 lb.	21 3 2
"	3,105 "	94	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Bags and sacks—		£		£ s. d.
Cornsacks	544,210 doz.	119,979	..	..
Unenumerated	2,597 „	269	£156	81 2 5
„	212 „	46	£46	6 16 6
„	20,861 „	3,302	..	..
Bagging and sacking	..	26	£26	3 18 0
„	..	625	..	..
Basket and wickerware	..	2,069	£2,083	416 11 8
Beer	191,222 galls.	39,166	175,953 galls.	17,593 17 2
Belting, leather	44,928 lb.	4,990	45,219 lb.	753 12 11
„	487 lb.	65	..	..
Belting, other than leather	..	13,774	..	..
Beverages, non-alcoholic—				
Aerated and mineral waters	3,849 doz.	805	£913	182 10 0
Coffee essence	..	8,021	£7,974	1,594 17 9
„	..	9	..	..
Limejuice, sweetened	4,124 galls.	865	£755	188 18 6
„ unsweetened	54,466 „	4,311	..	..
Unenumerated	..	477	£509	127 4 2
Bicycles and tricycles	6,829 No.	57,506	£59,672	11,934 8 10
„	12 „	110	..	..
Materials for	..	28,253	£27,523	5,504 11 2
„	..	26,746	..	..
Biscuits—				
Fancy, and other kinds	39,909 lb.	1,879	39,984 lb.	333 4 0
Ships', plain	65 cwt.	31	19 cwt.	2 17 11
Blacking	..	3,632	£3,435	687 1 10
Blacklead	..	2,991	£2,908	581 10 6
Blue	164,736 lb.	4,547	200,384 lb.	1,669 17 4
Boats	13 No.	332	..	..
Bones	2,095 tons	8,524	..	..
Books, printed	..	132,260	..	..
Boots and shoes	72,883 doz. prs	144,717	£145,297	32,691 14 9
Nos. 0 to 3	2,027 „	1,389	..	..
Gum-boots	526 „	5,487	..	..
Borax	1,605 cwt.	1,843	..	..
Brass—				
Pigs, bars, tubes, and sheets	651 „	2,445	..	..
Tubing and stamped-work in the rough	223 „	958	..	..
Manufactures	..	6,258	£6,225	1,245 0 4
„	..	65	..	..
Bricks—				
Building	180 No.	6	..	..
Fire	118,932 „	465	£465	93 0 0
Other kinds	101,773 „	203	..	..
Brushware and brooms—				
Brooms	2,403 doz.	1,179	£1,234	308 10 11
Brushes (clothes, hair, hat, and toilet)	..	4,343	£4,348	869 16 11
Ditto	..	11	..	..
Unenumerated	..	5,540	£5,407	1,351 15 8
Ditto	..	46	..	..

General Imports into the Colony of New Zealand during 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Brushware and brooms—*ctd.*		£		£ s. d.
Materials for	..	5,092	..	..
Buckets and tubs—				
Iron	2,190 doz.	1,253	£1,250	312 11 5
Wood	100 „	44	£44	8 16 0
Building materials, unenumerated	..	667	..	..
Butter	60 cwt.	273	..	..
Candles	1,626,173 lb.	25,769	1,754,693 lb.	14,622 8 10
Canes and rattans ..	..	1,783	..	..
Canvas	..	30,866	..	..
Caramel, brewers' ..	13,448 lb.	191	13,756 lb.	171 19 0
Cards, playing	56,976 packs	1,179	59,004 packs	1,475 2 0
Carpeting and druggeting ..	..	33,690	£33,390	6,677 18 5
„ ..	..	440	..	..
Carriages, &c.—				
Carriages	94 No.	1,853	£2,354	470 15 3
Carts, drays, and wagons	103 „	920	£920	183 19 4
Perambulators and go-carts	152 „	260	£260	52 0 0
Materials for	..	3,485	£3,468	693 13 9
Axles, axle-arms, and boxes	..	9,995	..	..
Carriage and cart shafts, spokes, and felloes in the rough	..	4,631	..	..
Carriage- and cart-makers' materials	..	10,831	..	..
Casks, empty	1,323 No.	827	£827	165 8 0
„	112 „	55	..	..
Cement	77,252 barrels	38,169	77,226 barrels	7,722 12 0
Chains and chain cables ..	6,078 cwt.	5,871	..	..
Charcoal	12,872 „	2,273	..	..
Cheese	21 „	104	£104	20 16 0
„	149 „	323	..	..
Chicory	936 lb.	29	828 lb.	10 7 0
China, porcelain, and parian-ware	..	15,963	£15,743	3,148 11 10
Ditto	..	142	..	..
Clocks	46,678 No.	13,394	£13,422	2,684 6 0
„	10 „	5	..	..
Coals	99,655 tons	92,815	..	..
Cocoa and chocolate ..	388,373 lb.	38,875	381,988 lb.	4,774 16 11
Cocoa beans	113,266 „	4,177	..	..
Coffee—				
Raw	276,287 „	10,033	254,252 lb.	2,118 15 3
Roasted	3,825 „	179	3,067 „	63 17 11
Coke	1,218 tons	2,885	..	..
Combs	..	1,168	£1,136	227 4 8
Confectionery—				
Chocolate confectionery: plain trade packages ..	93,801 lb.	4,919	96,789 lb.	1,209 17 4
Chocolate confectionery: fancy packages ..	..	4,333	£4,417	883 8 0
Unenumerated ..	378,400 „	13,302	392,911 lb.	3,274 5 3

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Copper—				
Nails	252 cwt.	1,144	..	..
Pig, bar, tube, and sheet	3,352 "	13,628	..	..
Rod and bolt	289 "	716	..	..
Sheathing	429 "	1,517	..	..
Copper manufactures ..	..	194	£190	38 0 0
"	..	88	..	..
Copra	669 tons	7,077	..	..
Cordage	3,984 cwt.	10,454	£10,174	2,034 15 10
"	147 "	369	..	..
Hawsers of 12 in. and over	347 "	531	..	..
Iron and steel	8,178 "	15,826	..	..
Cork, cut	..	7,010	£7,009	1,401 14 7
"	..	226	..	..
Cotton piece-goods—				
Butter- and cheese-cloth	..	1,670	..	..
Calico, white and grey ..	..	125,253	..	..
Corduroy, moleskin, and beaver-skin	..	6,300	..	..
Leather-cloth	..	4,841	..	..
Shirtings, coloured cotton	..	33,797	..	..
" flannelette ..	..	7,787	..	..
" union, of 6d. per yard and under ..	..	3,186	..	..
Tubular woven cotton cloth	..	4,898	..	..
Waterproof material ..	..	27,827	..	..
Unenumerated ..	..	113,721	£110,285	22,056 18 10
" ..	..	97	..	..
Cotton—				
Unenumerated ..	..	118,118	£112,996	11,299 11 7
Raw	5,480 lb.	78	..	..
Waste	2,660 cwt.	3,563	..	..
Wick	75,903 lb.	2,996	..	..
Cutlery	..	19,749	£19,614	3,922 17 1
"	..	15	..	..
Doors, plain	1,097 No.	544	1,101 No.	110 2 0
Drapery	..	254,845	£250,644	50,128 16 6
Lace and laces n.o.e. ..	..	37,546	£35,924	8,981 2 7
Ribbons and crape ..	..	16,422	£15,995	3,998 12 5
Tailors' trimmings ..	..	86,883	..	..
Drugs, chemicals, and druggists' wares—				
Baking powder, yeast preparations, &c. ..	..	451	£371	74 4 0
Chemicals, unenumerated	..	5,996	£5,802	1,160 8 4
Cream of tartar ..	704,215 lb.	26,693	683,148 lb.	2,846 9 0
Drugs, druggists' sundries, and apothecaries' wares	..	61,101	£60,523	12,104 12 0
Ditto	..	5	..	..
Tinctures and medicinal spirits	29,943 lb.	1,962	27,283 lb.	1,364 2 10
Ditto	6,239 lb.	413	5,974	149 6 9
Anhydrous ammonia ..	..	4,393	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
Drugs, chemicals, and druggists' wares—*continued.*		£		£	s.	d.
Arsenic	1,568 cwt.	1,733	..	..		
Disinfectants	..	3,374	..	..		
Food preservative ..	..	4,067	..	..		
Gums	..	2,069	..	..		
Insecticides and tree-washes	..	1,810	..	..		
Maltine	..	1,049	..	..		
Medicinal barks, leaves, &c...	..	1,427	..	..		
Phosphorus	..	817	..	..		
Potassium cyanide ..	5,698 cwt.	32,717	..	..		
Sheep-dip	..	26,370	..	..		
Sheep- and horse-drenches and sheep licks ..	..	95	..	..		
Unenumerated ..	..	10,056	..	..		
Dyes	..	15,977	..	..		
Earthenware	..	44,354	£44,198	8,839	12	11
〃	..	1,067	..	..		
Eggs	9 doz.	7	£2	0	8	0
Engine-packing	2,330 cwt.	5,960	..	..		
Essences, flavouring—						
Spirituous	1,329 gals.	3,611	1,447 gals.	1,157	5	2
Unenumerated ..	..	65	£40	5	18	6
Essential oils—						
Eucalyptus	8,455 lb.	1,876	£1,817	363	8	0
Other kinds	31,460 〃	5,359	..	..		
Fancy goods	..	107,342	£106,550	21,309	18	5
〃 ..	..	2,772	..	..		
Felt sheathing	..	6,373	..	..		
Fire engines, including extinguishers	126 No.	701	..	..		
Fire hose and other appliances	..	1,409	..	..		
Fireworks	..	683	£671	134	5	1
〃	..	375	..	..		
Fish—						
Anchovies, salted ..	14 cwt.	29	..	..		
Dried, pickled, and salted	2,476 〃	3,983	2,421 cwt.	1,210	10	1
Potted and preserved ..	1,208,098 lb.	26,937	1,196,015 lb.	9,966	15	10
〃 ..	3,168 〃	130	..	..		
Ova	..	1	..	..		
Fishing tackle—						
Artificial flies	..	320	£319	79	17	0
Fish-hooks	..	520	..	..		
Unenumerated ..	..	2,165	£2,202	440	9	9
Flock	89 cwt.	78	£78	7	17	2
Floorcloth and oilcloth ..	..	64,642	£64,320	12,863	19	5
〃 ..	..	573	..	..		
Flour	2,909 centals	1,055	2,900 centals	144	19	9
Foods, animal—						
Chaff	16 tons	39	11 tons	10	12	9
Unenumerated ..	..	2,309	£2,257	451	7	8

General Imports into the Colony of New Zealand during 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Foods, farinaceous—		£		£ s. d.
Arrowroot	67,652 lb.	839	..	..
Macaroni and vermicelli	108,738 „	1,469	..	..
Maizena and corn-flour	976,661 „	12,202	1,006,612 lb.	1,048 11 1
Sago and tapioca	14,184 cwt.	9,620	..	..
Unenumerated	..	2,407	..	..
Fruits, bottled and preserved	30,730 doz. pints	8,553	£8,352	2,087 18 2
Fruits, dried—				
Currants	3,067,994 lb.	24,656	3,022,444 lb.	25,187 0 8
Raisins	2,116,481 „	34,923	2,016,445 „	16,803 14 2
Unenumerated	728,166 „	12,772	735,837 „	6,131 19 6
Fruits, fresh—				
Apples, pears, plums, &c.	439,893 „	6,027	439,502 „	1,831 5 2
„ „	400 „	3	..	..
„ „	743,228 „	7,720	742,818 „	1,547 10 9
Currants, raspberries, &c.	82,573 „	1,427	77,278 „	160 19 11
Lemons	472,257 „	4,959	472,738 „	984 17 5
Other kinds	17,727,086 „	76,831	..	..
Lemon- and orange-peel, in brine	388,725 „	2,132	..	..
Preserved in sulphurous acid	33,797 „	585	33,797 lb.	140 16 5
Pulp and partially-preserved fruit	192 „	2	192 „	1 4 0
Fungus	76 cwt.	111	..	..
Furniture and upholstery	..	32,609	£32,800	8,199 19 0
„	..	74	..	..
Kapok	3,956 cwt.	11,636	..	..
Unenumerated	..	3,816	..	..
Furniture-, knife-, and plate-powder and polish	..	4,463	£4,499	899 16 4
Furs	..	4,838	£4,833	1,208 3 9
Gelatine and isinglass	67,688 lb.	5,388	£5,157	1,031 7 4
Glass—				
Bottles, empty	..	34,439	..	..
Mirrors and looking-glasses	..	5,567	£5,555	1,388 16 7
Plate, bevelled	..	4,724	£4,728	1,181 18 3
„ other kinds	272,177 sup. ft.	8,024	£8,018	1,603 11 8
„ „	28 „	13	..	..
Window	3,187,959 „	18,805	2,550,650 sup. ft.	2,550 13 2
„	7,921 „	39	..	..
Glassware	..	26,671	£26,513	5,302 11 11
„	..	6,242	..	..
Glue and size	65,741 lb.	1,508	66,148 lb.	413 8 6
„	2,059 „	97	..	..
Gold-leaf	..	563	..	..
Grain and pulse—				
Barley	56 centals	28	50 centals	5 0 7
Beans and peas	536 „	275	526 „	19 14 4
Oats	193 „	119	193 „	7 4 6
Wheat	26 „	18	25 „	0 18 11
Unenumerated	3,562 „	2,484	3,614 „	135 10 9
„	40 „	25	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
Grain and pulse—*continued.*		£		£	s.	d.
Ground, unenumerated ..	5,054 centals	4,881	5,488 centals	274	8	2
〃 ..	36 〃	11	..	..		
Grease	1,832 cwt.	1,568	£1,515	303	0	6
〃	20 〃	50	..	..		
Grindery—						
Heel- and toe-plates ..	..	1,242	£1,297	291	16	6
Unenumerated ..	..	19,363	..	..		
Haberdashery	..	15,111	£14,925	2,984	19	6
Buttons, &c.	..	25,534	..	..		
Sewing-cottons, silks, and threads	..	40,031	..	..		
Unenumerated ..	..	4,132	..	..		
Hair	322 cwt.	1,296	..	..		
Hardware, holloware, and ironmongery ..	..	217,101	£214,943	42,988	10	3
Ditto	..	4,646	..	..		
Coffin furniture ..	..	1,637	£1,673	334	12	0
Hats and caps	73,379 doz.	68,175	£66,584	16,646	1	11
〃	12 〃	9	..	..		
Hatters' materials ..	..	7,815	..	..		
Hemp	101 tons	2,724	..	..		
Hides	3,083 No.	2,627	..	..		
Honey	276 lb.	3	276 lb.	2	6	0
Hops	129,326 〃	5,121	135,901 〃	3,397	10	9
〃	4,564 〃	137	..	..		
Hosiery	..	90,544	£88,668	17,733	14	7
〃	..	1	..	..		
Indiarubber and gutta-percha goods	..	10	£10	2	0	0
Ditto	..	9,135	..	..		
Ink—						
Printing	141,630 lb.	5,283	..	..		
Writing	..	1,450	£1,446	289	2	0
〃	..	206	..	..		
Instruments, musical—						
Harmoniums and organs	633 No.	5,349	£5,297	1,059	8	3
Pianofortes	3,146 〃	69,706	£69,915	13,983	0	0
Unenumerated ..	..	11,272	£11,442	2,288	8	10
〃	..	78	..	..		
Materials for	..	207	£82	16	8	0
〃	..	1,758	..	..		
Instruments, other kinds—						
Optical	..	2,389	..	..		
Scientific	..	4,948	..	..		
Surgical and dental ..	..	18,586	..	..		
Surveying	..	718	..	..		
Unenumerated ..	..	191	..	..		
Iron and steel—						
Angle	392 tons	3,762	..	..		
Bar, bolt, and rod ..	13,397 〃	123,145	..	..		
Bolts and nuts ..	3,548 cwt.	3,230	£3,246	649	5	7
〃 ..	5,390 〃	6,159	..	..		
Castings for ships ..	20 tons	781	..	..		

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Iron and steel—*continued.*				
Galvanised manufactures	..	1,257	£1,254	313 11 3
Hoop	1,477 tons	14,697	..	..
Hoop, galvanised ..	1,845 cwt.	1,443	1,839 cwt.	137 18 3
Pig	5,800 tons	24,627	..	..
Pipes and fittings ..	5,750 "	57,028	£56,858	2,842 18 0
" ..	40 "	409	..	..
Rails	7,781 "	49,435	..	..
Railway bolts and fastenings	5 "	51	£51	10 4 0
Ditto	1,605 tons	14,071	..	..
Sheet and plate ..	5,146 "	50,466	..	..
Sheet, galvanised, corrugated	220,545 cwt.	181,960	218,538 cwt.	21,853 16 10
Sheet, galvanised, plain	40,887 "	34,427	40,677 "	3,050 15 7
Staples and standards ..	384 tons	4,206	£4,214	842 15 5
Tanks	2,858 No.	8,578	2,998 No.	1,499 0 0
"	816 "	1,525	813 "	203 5 0
Wire, fencing, barbed ..	2,407 tons	26,110	..	..
Wire, fencing, plain ..	6,958 "	63,578	..	..
Wire, telegraphic and telephonic	200 "	3,524	..	..
Wire-netting	..	24,562	..	..
Wire, unenumerated ..	469 tons	6,493	..	..
Unenumerated ..	227 "	1,099	..	..
Jams, jellies, and preserves	399,892 lb.	6,444	375,354 lb.	3,127 18 11
Jellies, concentrated ..	54,132 "	2,131	50,993 "	849 17 10
Jewellery	..	19,094	£19,150	3,829 18 0
"	..	1,155	..	..
Lamps, lanterns, and lampwick	..	16,247	£16,291	3,258 4 2
Ditto	..	160	..	..
Lard	29 cwt.	51	£15	3 0 0
Lead—				
Pigs and bars	359 tons	5,337	..	..
Pipe	572 cwt.	565	508 cwt.	88 19 3
Sheet	15,176 "	13,566	15,180 "	1,138 9 8
"	998 "	1,041	..	..
Manufactures	..	233	£233	46 12 0
"	..	32	..	..
Leather	497,547 lb.	60,951	8,019 lb.	133 13 0
			73,186 "	914 16 6
			173,185 "	1,443 4 8
			241,903 "	1,007 18 7
"	103,454 "	10,648	..	..
" chamois	..	457	£462	92 9 5
Leather manufactures—				
Boot and shoe vamps, uppers, and laces ..	..	6,447	£6,451	1,451 10 2
Unenumerated ..	..	700	£716	161 3 0
" ..	..	742	£729	145 16 0
" ..	..	23	..	..
Lighthouses, materials for	..	745	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
		£		£	s.	d.
Linen piece-goods—						
Forfar, dowlas, and flax sheeting n.o.e. ..	..	16,116	£1,747	349	8	0
Ditto	..	94	..	..		
Forfar, dowlas, &c., cut up under supervision ..	..	..	£9,662	..		
Unenumerated ..	..	17,538	£17,896	3,579	3	10
Hessian and scrim ..	..	35,419	..	..		
Linseed	2 tons	22	33 cwt.	1	18	6
„	½ „	5	..	..		
Liquorice	..	2,111	£2,117	423	8	3
Machinery and machines—						
Agricultural	..	27,840	£25,528	1,276	8	6
„	..	63,940	..	..		
Ploughs and harrows ..	..	17,063	..	..		
Dairying	..	3,711	£4,190	209	10	0
„ boilers for ..	75 No.	2,213	£1,724	86	4	0
„ engines for ..	22 „	1,032	£1,170	58	10	0
„	..	11,096	..	..		
Dredging	..	9,299	£9,299	464	19	0
„ boilers for ..	1 No.	166	£166	8	6	0
Electric	..	16,030	£15,721	1,572	2	9
„	..	9,710	..	..		
Engines, steam ..	52 No.	7,531	£6,196	1,239	4	0
„ gas	174 „	14,283	..	..		
„ boilers for ..	161 „	5,704	£5,277	1,055	7	0
„ „ ..	1 „	500	..	..		
Marine boilers ..	1 „	770	£770	154	0	0
Flour-milling	..	4,163	£4,161	208	1	5
Gas-making	..	10,219	£10,012	1,001	3	3
„	..	4,130	..	..		
Mining	..	19,268	£19,024	951	4	0
„ boilers for ..	10 No.	2,913	£2,913	145	13	0
„ engines for ..	11 „	1,663	£799	39	19	0
„	..	19,726	..	..		
Paper-milling	..	4,326	£4,326	216	6	0
„	..	187	..	..		
Portable and traction engines	60 No.	23,463	£23,394	1,169	14	3
Printing	..	16,497	£16,552	827	12	2
„	..	2,499	..	..		
Refrigerating	..	32,505	£32,124	1,606	4	4
Sewing and knitting ..	9,105 No.	30,801	..	..		
Wood-working	..	6,238	£5,685	284	5	6
„	..	1,395	..	..		
Woollen-milling ..	..	8,234	£8,283	414	3	0
„	..	1,675	..	..		
Unenumerated ..	..	38,445	£34,826	6,965	3	10
„	..	8,064	..	..		
„	..	3,553	£3,553	355	6	0
„	..	13,463	£13,440	672	0	0
„	..	398	..	..		
Materials for and parts of	..	2,464	£1,351 £1,272	270 68	4 12	0 0

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Iron and steel—*continued.*				
Galvanised manufactures	..	1,257	£1,254	313 11 3
Hoop	1,477 tons	14,697	..	..
Hoop, galvanised ..	1,845 cwt.	1,443	1,839 cwt.	137 18 3
Pig	5,800 tons	24,627	..	..
Pipes and fittings ..	5,750 "	57,028	£56,858	2,842 18 0
" ..	40 "	409	..	..
Rails	7,781 "	49,435	..	..
Railway bolts and fastenings	5 "	51	£51	10 4 0
Ditto	1,605 tons	14,071	..	..
Sheet and plate ..	5,146 "	50,466	..	..
Sheet, galvanised, corrugated	220,545 cwt.	181,960	218,538 cwt.	21,853 16 10
Sheet, galvanised, plain	40,887 "	34,427	40,677 "	3,050 15 7
Staples and standards ..	384 tons	4,206	£4,214	842 15 5
Tanks	2,858 No.	8,578	2,998 No.	1,499 0 0
"	816 "	1,525	813 "	203 5 0
Wire, fencing, barbed ..	2,407 tons	26,110	..	..
Wire, fencing, plain ..	6,958 "	63,578	..	..
Wire, telegraphic and telephonic	200 "	3,524	..	..
Wire-netting	..	24,562	..	..
Wire, unenumerated ..	469 tons	6,493	..	..
Unenumerated ..	227 "	1,099	..	..
Jams, jellies, and preserves	399,892 lb.	6,444	375,354 lb.	3,127 18 11
Jellies, concentrated ..	54,132 "	2,131	50,993 "	849 17 10
Jewellery	..	19,094	£19,150	3,829 18 0
"	..	1,155	..	..
Lamps, lanterns, and lampwick	..	16,247	£16,291	3,258 4 2
Ditto	..	160	..	..
Lard	29 cwt.	51	£15	3 0 0
Lead—				
Pigs and bars	359 tons	5,337	..	..
Pipe	572 cwt.	565	508 cwt.	88 19 3
Sheet	15,176 "	13,566	15,180 "	1,138 9 8
"	998 "	1,041	..	..
Manufactures	..	233	£233	46 12 0
"	..	32	..	..
Leather	497,547 lb.	60,951	8,019 lb. 73,186 " 173,185 " 241,903 "	133 13 0 914 16 6 1,443 4 8 1,007 18 7
"	103,454 "	10,648	..	..
" chamois	..	457	£462	92 9 [illegible]
Leather manufactures—				
Boot and shoe vamps, uppers, and laces ..	..	6,447	£6,4	
Unenumerated ..	..	700		
" ..	..	742		
" ..	..	23		
Lighthouses, materials for	..	745		

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Linen piece-goods—				
Forfar, dowlas, and flax sheeting n.o.e. ..	..	16,116	£1,747	349 8 0
Ditto	..	94	..	..
Forfar, dowlas, &c., cut up under supervision ..	..	..	£9,662	..
Unenumerated ..	..	17,538	£17,896	3,579 3 10
Hessian and scrim ..	..	35,419	..	..
Linseed	2 tons	22	33 cwt.	1 13 6
"	½ "	5	..	..
Liquorice	..	2,111	£2,117	423 8 3
Machinery and machines—				
Agricultural	..	27,840	£25,528	1,276 8 6
"	..	63,940	..	..
Ploughs and harrows ..	..	17,063	..	..
Dairying	..	3,711	£4,190	209 10 0
" boilers for ..	75 No.	2,213	£1,724	86 4 0
" engines for ..	22 "	1,032	£1,170	58 10 0
"	..	11,096	..	..
Dredging	..	9,299	£9,299	464 19 0
" boilers for ..	1 No.	166	£166	8 6 0
Electric	..	16,030	£15,721	1,572 2 9
"	..	9,710	..	..
Engines, steam ..	52 No.	7,531	£6,196	1,239 4 0
" gas	174 "	14,283	..	..
" boilers for ..	161 "	5,704	£5,277	1,055 7 0
" " ..	1 "	500	..	..
Marine boilers ..	1 "	770	£770	154 0 0
Flour-milling	..	4,163	£4,161	208 1 5
Gas-making	..	10,219	£10,012	1,001 3 3
"	..	4,130	..	..
Mining	..	19,268	£19,024	951 4 0
" boilers for ..	10 No.	2,913	£2,913	145 13 0
" engines for ..	11 "	1,663	£799	39 19 0
"	..	19,726	..	..
Paper-milling	..	4,326	£4,326	216 6 0
"	..	187	..	..
Portable and traction engines	60 No.	23,463	£23,394	1,169 14 9
Printing	[illegible]	16,497	£16,552	827 12 2
" ..	[illegible]	2,499	..	..
Refrigerating [illegible]	[illegible]	32,505	£32,124	1,606 4 4
Sewing and [illegible]	[illegible]	30,801	..	..
Wood-workin[illegible]	[illegible]	6,238	£5,685	284 5 0
" [illegible]	[illegible]	1,395	..	..
Woolle[illegible]	[illegible]	8,234	£8,263	414 [illegible]
[illegible]	[illegible]	1,675	..	..
U[illegible]	[illegible]	39,445	£34,826	[illegible]
[illegible]	[illegible]	8,064	..	[illegible]
[illegible]	[illegible]	1,553	£3,563	[illegible]
[illegible]	[illegible]	13,463	£13,440	[illegible]
[illegible]	[illegible]	398	..	[illegible]
[illegible]	[illegible]	2,454	£1,351 £1,379	[illegible]

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
Machinery, &c.—*continued.*		£		£	s.	d.
Materials for and parts of	..	6,238	..	..		
Malt	3,342 bush.	1,154	3,356 bush.	335	12	6
Rice malt	2,022 lb.	19	2,022 lb.	8	8	6
Manures—						
Bone-dust	7,094 tons	34,874	..	..		
Guano	11,486 „	34,016	..	..		
Unenumerated ..	12,321 „	47,505	..	..		
Marble—						
Dressed or polished, and manufactures ..	..	3,997	£4,033	1,008	4	6
Hewn, or rough-sawn ..	273 tons	1,752	..	..		
Matches and vestas—						
Wax	27,633 gross	5,620	8,014 gross	2,003	10	0
			110 „	13	15	0
			2,067 „	180	16	11
			22,512 „	1,313	4	0
Wooden	32,080 gross	2,810	320 gross	32	0	0
			23,603 „	1,180	3	0
Mats and matting ..	..	7,207	£7,043	1,408	11	0
„	..	40	..	..		
Meats—						
Potted and preserved ..	47,488 lb.	2,069	£2,037	407	7	2
„ ..	5,990 „	102	..	..		
Medicines, patent and proprietary	..	34,095	£35,282	14,112	19	6
Sarsaparilla	..	98	£70	17	10	0
Metal manufactures ..	..	9,503	£9,416	1,883	5	11
„	..	696	..	..		
Japanned and lacquered metalware	..	1,713	£1,702	425	12	7
Weighbridges and weighing-machines ..	..	1,987	£1,962	392	7	3
Ditto	..	486	..	..		
Anchors	504 No.	581	..	..		
Rivets and washers ..	7,844 cwt.	6,693	..	..		
Tacks	1,275 „	1,894	..	..		
Type-writers	426 No.	5,254	..	..		
Unenumerated ..	..	42,075	..	..		
Metal sheathing, other than copper	720 cwt.	2,495	..	..		
Milk, preserved	765,742 lb.	14,576	£12,312	3,078	1	11
„	16,416 „	315	..	..		
Millinery—						
Feathers, ornamental ..	..	2,515	£2,610	652	8	2
Other kinds	..	34,417	£33,719	8,429	13	0
Mustard	221,179 lb.	12,280	210,042 lb.	1,750	7	0
Nails—						
Iron	51,210 cwt.	31,197	50,523 cwt.	5,052	6	4
Unenumerated ..	63 „	166	73 „	10	18	5
Naphtha	10,637 galls.	1,867	10,511 galls.	262	15	4
Nuts—						
Almonds, in shell ..	18,989 lb.	511	21,304 lb.	177	10	9
Almonds, shelled ..	34,910 „	1,776	36,039 „	450	9	8

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
		£		£	s.	d.
Nuts—*continued.*						
Almonds, Barbary, &c.	88,773 lb.	3,828	..	..		
Cocoa	148,126 No.	492	..	..		
Unenumerated	33,953 lb.	521	31,505 lb.	262	10	9
Oakum	455 cwt.	570	..	..		
Oars	2,099 No.	282	..	..		
Oils—						
Castor, bulk	75,362 galls.	8,778	74,097 galls.	1,852	8	6
„	9,784 „	1,182	..	..		
Castor, bottled	1,935 doz. pts	644	£614	92	3	2
Cod liver	5,538 galls.	1,366	..	..		
Colza	14,189 „	1,627	13,987 galls.	349	13	3
„	1,985 „	327	..	..		
Fish, penguin, and seal	53,988 „	4,168	..	..		
Linseed	189,218 „	18,825	191,287 galls.	4,782	3	6
„	6,575 „	582	..	..		
Mineral, kerosene	1,501,817 „	51,863	1,676,547 galls.	41,913	13	9
Mineral, other kinds	148,720 „	13,616	143,803 „	3,595	1	8
„	50,653 „	2,333	..	..		
Neatsfoot	3,939 „	388	3,936 galls.	98	8	0
Olive, bulk	11,380 „	1,844	9,503 „	237	11	4
Olive, bottled	3,530 „	,486	£1,457	218	10	4
Whale	1,794 „	120	..	..		
Unenumerated, bulk	143,485 „	12,758	139,137 galls.	3,478	8	7
„	7,626 „	765	..	..		
Unenumerated, bottled	5,635 doz. pts	2,162	£2,227	333	19	6
Unenumerated	61,491 galls.	2,633	..	..		
Oilmen's stores	..	5,417	£5,122	1,024	9	11
Onions	5,942 cwt.	2,698	6,225 cwt.	311	5	4
Opium	2,198 lb.	3,499	3,070 lb.	6,139	4	4
Paints and colours—						
Ground in oil	29,396 cwt.	35,134	29,299 cwt.	3,662	7	8
„	728 „	768	..	..		
Mixed, ready for use	4,083 „	8,970	3,892 cwt.	973	0	1
Unenumerated	10,460 „	10,708	..	..		
Paper—						
Bags, coarse	216 „	211	38 cwt.	14	8	10
Bags, other kinds	2,024 „	3,881	£3,680	919	18	2
Butter-paper	2,866 „	5,579	..	..		
Hangings	899,127 pieces	21,832	£21,907	3,286	0	8
Printing	84,699 cwt.	78,908	..	..		
Wrapping	4,529 „	5,121	4,241 cwt.	1,060	2	10
„	208 „	232	..	..		
Writing	9,974 „	18,131	..	..		
Unenumerated	1,175 „	1,587	..	..		
Pearl barley	290 „	169	291 cwt.	14	11	0
Peas, split	1,029 „	530	989 „	98	18	5
Peel, candied and dried	16,733 lb.	879	16,704 lb.	208	16	0
Perfumery—						
Perfumed spirits	1,577 gals.	6,032	1,392 gals.	2,087	19	5
Toilet preparations	..	6,295	£6,439	1,609	14	0
Unenumerated	..	1,465	£1,482	370	10	0
„	..	52	..	..		

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
		£		£	s.	d.
Photographic goods (including chemicals) ..	..	3,985	£3,999	799	14	0
Copper, glass, and zinc plates for photo-lithographic work ..	..	861	..	..		
Photographic cameras and lenses	..	5,048	..	..		
Sensitised surfaces ..	..	12,856	..	..		
Pickles	5,901 gals.	1,387	5,335 gals.	800	5	0
Pictures, paintings, drawings, engravings, and photographs ..	..	3,796	£3,816	763	3	9
Ditto	..	185	..	..		
Family portraits ..	..	24	..	..		
For museums ..	..	505	..	..		
Picture-frames and mounts	..	2,057	£2,046	409	5	0
Pitch	668 cwt.	316	..	..		
Plants, shrubs, &c. ..	..	2,687	..	..		
Plaster of Paris	4,947 cwt.	1,208	..	..		
Plate and plated ware ..	..	31,883	£30,711	6,142	4	6
" ..	..	20	..	..		
Portmanteaux and travelling bags	..	4,314	£4,311	1,077	16	10
Leather bags and leather-cloth bags	..	206	£211	42	4	0
Potatoes	1 ton	5	£5	1	0	0
"	2 tons	40	..	..		
Printing materials—						
Stereotypes and matrices	..	84	£80	20	0	0
" ..	..	757	..	..		
Type and materials, n.o.e.	..	11,803	..	..		
Provisions n.o.e.	..	5,810	£5,655	1,131	1	4
"	..	27	..	..		
Pumps	..	4,117	£2,820	564	0	5
"	..	120	..	..		
Putty	3,824 cwt.	1,655	3,827 cwt.	382	14	0
Quicksilver	6,736 lb.	751	..	..		
Rags	148 tons	595	..	..		
Railway plant—						
Locomotives	1 No.	420	..	..		
"	11 "	30,962	..	..		
Unenumerated ..	..	1,550	£347	69	8	0
" ..	..	30,875	..	..		
Resin	11,583 cwt.	3,262	..	..		
Rice	68,559 "	41,189	53,157 cwt. 8,624 "	15,947 862	4 8	7 1
Rugs, all kinds	..	11,216	£11,213	2,242	13	1
"	..	21	..	..		
Saccharine	6,952 oz.	659	6,765 oz.	507	7	6
Saddlery and harness (including whips) ..	..	23,831	£23,661	4,732	2	8
Ditto	..	1,266	..	..		

General Imports into the Colony of New Zealand during 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
		£		£	s.	d.
Saddlery, &c.—*continued.*						
Collar-check	..	4,779	..	..		
Harness-oil, composition, and leather-dressing ..	..	3,205	£3,153	690	10	6
Ditto	..	854	..	..		
Saddlers' ironmongery ..	..	18,233	..	..		
Salt	12,664 tons	29,876	12,637 tons	6,318	13	10
Rock	1,098 „	2,293	..	..		
Saltpetre	90 „	1,647	..	..		
Sauces	10,816 gals.	7,534	10,460 gals.	2,092	0	8
Sausage-skins	125,018 lb.	6,251	144,910 lb.	1,811	7	7
„	397 „	18	..	..		
Seeds—						
Grass and clover ..	23,672 cwt.	45,271	..	..		
Unenumerated ..	..	21,292	..	..		
Shale	471 tons	1,493	..	..		
Shells	259 „	518	..	..		
Ship chandlery, n.o.e ..	..	3,790	..	..		
Silks, &c.	..	87,639	£38,698	22,174	11	8
For flour-dressing ..	..	154	..	..		
Silver	388 oz.	62	..	..		
Skins and pelts—						
Fur skins	5,365 No.	201	..	..		
Kangaroo and wallabi skins	26,175 „	1,035	..	..		
Unenumerated ..	7,129 „	466	..	..		
Slates, roofing	244,080 „	1,934	..	..		
Soap—						
Common	2 cwt.	2	2 cwt.	0	10	0
Powder, extract of soap, &c.	..	4,567	£4,630	925	18	0
Ditto	..	26	..	..		
Unenumerated ..	924,259 lb.	20,762	£20,048	5,011	18	3
„	850 „	20	..	..		
Specie—						
Copper	..	1,482	..	..		
Gold	..	116,175	..	..		
Silver	..	8,320	..	..		
Specimens illustrative of natural science ..	..	326	..	..		
Spices—						
Ground	17,156 lb.	748	18,638 lb.	310	12	8
Unground	387,300 „	11,532	393,991 „	3,283	5	2
Spirits—						
Bitters, cordials, and liqueurs	2,832 gals.	2,813	2,942 gals.	2,353	18	6
Brandy	74,413 „	31,522	68,739 „	54,991	9	11
Geneva and gin, unsweetened	68,939 „	16,294	54,154 „	43,323	11	10
Methylated	283 „	41	676 „	33	16	9
Rum	15,109 „	2,346	16,668 „	13,334	11	7
Sweetened	5,946 „	1,722	6 752 „	5,401	14	4
Whiskey	434,876 „	150,743	360,728 „	288,582	8	3

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued*.

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received		
		£		£	s.	d.
Spirits—*continued*.						
Unenumerated ..	2,247 gals.	1,409	2,483 gals.	1,986	9	8
Spirits of wine	32,361 "	2,253	1,469 "	1,175	9	8
"	50 "	10	..	..		
Methylated, in bond ..	..	..	26,006 "	650	2	11
Sponges	1,545 lb.	288	£306	61	2	7
Starch	869,462 "	9,783	832,815 lb.	6,940	2	6
Stationery—						
Manufactured	..	35,847	£34,369	8,592	2	11
"	..	3,213	..	..		
Ditto, unenumerated ..	..	34,343	£35,088	7,017	10	5
"	..	4,357	..	..		
Apparatus and appliances for teaching purposes	..	4,432	..	..		
Bookbinders' materials ..	..	5,502	..	..		
Materials for cardboard-boxes	..	8,792	..	..		
Unenumerated ..	..	4,389	..	..		
Stearine	224,880 lb.	4,041	220,199 lb.	1,376	4	11
Stone—						
Building	256 tons	558	..	..		
Flagging	1 "	4	..	..		
Granite, and other stone, dressed or polished	..	1,738	£1,769	442	5	0
Grind-, mill-, oil-, and whet-stones	..	2,101	..	..		
Sugar—						
Raw	434,220 cwt.	217,110	..	..		
Refined	178,011 "	133,131	75,060,134 lb.	156,375	5	7
Glucose	2,876 "	1,542	441,437 "	1,839	6	5
Molasses and treacle ..	8,026 "	3,142	2,195,178 "	4,573	5	9
Molasses and treacle, mixed with bone-black	..	..	3,062 cwt.	..		
Sulphur	1,313 cwt.	596	..	..		
Tallow	$2\frac{3}{10}$ tons	71	..	..		
Tanning materials, crude—						
Bark	4,196 tons	34,628	..	..		
Other kinds	..	5,362	..	..		
Tarpaulins and tents ..	..	745	£740	148	0	0
Tar	..	920	..	..		
Tea	4,771,139 lb.	183,691	4,798,503 lb.	79,975	1	1
Textile piece-goods other than silk, cotton, linen, or woollen	..	14,005	£13,679	2,735	16	0
Articles made up from, other than apparel ..	..	15,705	£15,393	3,848	4	11
Timber—						
Laths and shingles ..	424,503 No.	450	427,800 No.	42	15	8
Logs	1,263 "	4.743	..	..		
Logs, hewn	2,970,815 sup. ft.	33,541	..	..		
Palings	406,841 No.	2,383	406,880 No.	406	16	10
Posts	7,750 "	291	7,750 "	31	0	0

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
		£		£	s.	d.
Timber—*continued.*						
Rails	3,000 No.	74	3,000 No.	6	0	0
Sawn, undressed	4,104,921 sup. ft.	29,769	4,104,875 sup. ft.	4,104	17	3
„	783,678 „	7,746	..	..		
Sawn, dressed	128,077 „	1,827	127,370 „	254	14	10
Unenumerated	..	2,260	..	..		
Tin—						
Block	2,253 cwt.	14,085	..	..		
Foil	14,612 lb.	683	..	..		
Sheet	37,752 cwt.	27,579	..	..		
Tinware	..	9,112	£9,306	2,326	11	3
Tinsmiths' furnishings and fittings	..	1,029	..	..		
Tobacco—						
Unmanufactured	41,592 lb.	2,093	40,491 lb.	4,049	2	0
Manufactured	1,496,759 „	116,869	1,480,046 „	259,008	1	0
Cigars	82,900 „	27,995	78,566 „	27,497	19	1
Cigarettes	156,316 „	37,024	56,633,600 No. 4,559 oz.	49,554 113	8 19	6 7
Snuff	1,780 „	192	1,840 lb.	644	0	0
Tobacco-pipes and cases	..	19,903	£19,797	4,949	3	1
Tools and implements—						
Axes and hatchets	..	7,000	..	..		
Engineers' machine tools	..	11,595	..	..		
Scythes	..	1,561	..	..		
Sheep-shears	..	3,657	..	..		
Spades, shovels, and forks	..	10,141	..	..		
Unenumerated	..	59,066	..	..		
Tramway plant	..	228	£228	45	12	0
Turpentine, driers, and terebine	58,803 gals.	7,337	..	..		
Twine—						
Binder	2,788 cwt.	4,705	..	..		
Nets and netting	..	763	£758	151	11	7
Unenumerated	419,545 lb.	12,743	£12,478	2,495	11	6
„	285 „	11	..	..		
„	..	187	..	..		
Umbrellas and parasols	..	17,026	£16,618	3,323	12	7
Materials for	..	2,143	..	..		
Varnish and gold size	29,751 gals.	14,421	30,799 gals.	3,079	18	8
„	1 „	1	..	..		
Vegetables, fresh, dried, and preserved	..	811	£690	137	18	0
Vinegar	64,199 „	6,007	64,899 gals.	1,622	9	0
Watches	40,377 No.	24,717	£24,689	4,937	16	2
Watchmakers' materials	..	802	..	..		
Wax—						
Paraffin	978,854 lb.	9,989	1,137,413 lb.	7,108	16	7
Beeswax	167 cwt.	931	..	..		
Whiting and chalk	11,625 „	1,397	11,512 cwt.	575	12	5
Wine—						
Australian	49,503 gals.	16,705	46,429 gals.	11,607	5	11
Sparkling	7,676 „	14,310	7,011 „	3,154	17	11

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1899—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.		
		£		£	s.	d.
Wine—*continued.*						
Other kinds	59,483 gals.	20,625	57,611 gals.	17,283	7	4
Woodenware	..	9,899	£9,898	1,979	13	2
"	..	1,556	..	..		
"	..	8,200	£8,333	1,249	19	8
"	..	5,814	..	..		
Wool—						
Greasy	4,869 lb.	97	..	..		
Scoured	5,237 "	359	..	..		
Woollen piece goods ..	..	268,881	£267,063	53,412	14	8
Blankets	27,159 pairs	10,571	£10,587	2,117	9	6
Woolpacks	42,139 doz.	40,436	..	..		
Wool-pockets	565 "	274	..	..		
Yarns	..	6,698	£6,883	1,376	12	2
Coir, flax, and hemp ..	..	6,810	..	..		
Zinc—						
Perforated sheet ..	411 cwt.	925	..	..		
Plain sheet	5,756 "	8,779	..	..		
Spelter	3,349 "	4,676	..	..		
Zinc manufactures—						
Tiles, ridging	..	31	£38	7	12	0
Unenumerated ..	..	13	£8	2	0	0
Minor articles required in the making-up of apparel	..	6,234	..	..		
Articles and materials suited only for and to be used solely in the fabrication of goods in the colony ..	..	18,072	..	..		
Goods, miscellaneous—						
Manufactured	..	9,832	..	..		
Unmanufactured ..	..	8,308	..	..		
Parcels Post	..	70,094	..	14,368	3	11
EXCISE DUTIES.						
Tobacco, manufactured ..	..	..	46,457 lb.	2,322	17	0
Cigars and cigarettes ..	..	..	1,220 "	91	9	6
Pharmacopœia tinctures, essences, extracts, and medicinal spirits containing more than 50 per cent. of proof spirit	..	..	49,745 "	1,865	8	11
Pharmacopœia tinctures, &c., containing less than 50 per cent. of proof spirit	..	..	800 "	10	0	1
Culinary and flavouring essences	..	..	248 gals.	148	18	4
Perfumed spirits.. ..	..	..	11 "	11	0	0

CUSTOMS REVENUE.

The Customs and excise duties received during the last five years are shown in detail, also the rate of revenue per head of mean population, inclusive and exclusive of Maoris, for each year:—

—	1895.	1896.	1897.	1898.	1899.
CUSTOMS DUTIES.	£	£	£	£	£
Spirits	340,972	362,923	384,218	395,513	414,395
Wine	27,102	28,846	30,518	31,138	32,045
Ale, Beer, &c.	17,120	18,208	19,035	19,158	17,594
Cigars, Cigarettes, and Snuff	49,574	58,788	65,347	71,430	77,810
Tobacco	233,770	239,988	244,669	257,516	263,057
Tea	94,716	73,858	76,081	78,676	79,975
Coffee, Cocoa, &c... ..	5,677	5,495	5,722	5,463	6,968
Sugar and Molasses ..	137,493	141,933	148,748	154,355	162,787
Opium	5,969	5,409	5,625	5,501	6,139
Other Goods by Weight ..	160,482	172,733	187,498	187,758	192,987
" ad valorem ..	447,749	562,961	634,043	637,506	682,722
Other Duties	93,884	86,841	102,025	105,987	91,155
Parcels Post	5,462	7,090	8,632	11,725	14,368
Totals, Customs Duties	1,619,970	1,765,073	1,912,161	1,961,726	2,042,002
EXCISE DUTIES.					
Tinctures—New Zealand ..	53	200	983	*1,244	†2,036
Cigars, Cigarettes, and Snuff —New-Zealand-manufactured	879	916	191	152	91
Tobacco — New-Zealand-manufactured	1,431	1,663	2,358	2,282	2,323
Beer—New Zealand ..	61,705	67,287	71,765	75,164	78,265
Totals, Excise Duties ..	64,068	70,066	75,297	78,842	82,715
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Revenue from Customs Duties per head of mean population (excluding Maoris)	2 6 9	2 9 11	2 13 0	2 13 3	2 14 5
Ditto (including Maoris) ..	2 4 2	2 7 3	2 10 3	2 10 6	2 11 8
Revenue from Excise Duties per head of mean population (excluding Maoris) ..	0 1 10·2	0 1 11·8	0 2 1·0	0 2 1 7	0 2 2 5
Ditto (including Maoris) ..	0 1 8·9	0 1 10·5	0 1 11·7	0 2 0·4	0 2 1·1

* Including £89 excise duty on culinary and flavouring essences † Including £149 excise duty on culinary and flavouring essences, and £11 on perfumed spirits.

The Customs revenue for the year 1899 amounted to £2,042,002, and the excise duties to £82,715. The revenue from Customs was £2 14s. 5d. per head of population excluding Maoris, and £2 11s. 8d. if they be included. In 1888 the Customs revenue was £2 6s. 2d. per head of European population, and from that time the proportion increased slowly year by year until 1892, when it reached £2 11s. 6d. per head. During the next two years there was a falling-off; but 1895 and following years show increases, the pro-

	Year 1899.	Year 1898.	Increase in 1899.	Decrease in 1899.
	£	£	£	£
THE FISHERIES.				
Fish	21,265	15,609	5,656	..
Oysters	2,128	4,373	..	2,245
Other	815	358	457	..
Total	24,208	20,340	3,868	..
THE FOREST.				
Fungus	10,593	7,093	3,500	..
Kauri-gum	607,919	586,767	21,152	..
Timber—				
Sawn and hewn	196,749	164,723	32,026	..
Other	2,482	2,787	..	305
Total	817,743	761,370	56,373	..
ANIMALS AND PRODUCE.				
Bacon and hams	14,364	8,211	6,153	..
Beef (salted)	7,831	6,379	1,452	..
Butter	571,799	403,690	168,109	..
Cheese	141,818	135,776	6,042	..
Hides	36,095	27,232	8,863	..
Live-stock	22,689	19,708	2,981	..
Preserved meats	90,910	97,171	..	6,261
Frozen meat	2,088,856	1,698,750	390,106	..
Rabbit-skins	81,118	51,607	29,511	..
Sausage-skins	42,823	45,539	..	2,716
Sheepskins and pelts	268,230	244,579	23,651	..
Tallow	311,649	302,141	9,508	..
Wool	4,324,627	4,645,804	..	321,177
Other	6,927	7,493	..	566
Total	8,009,736	7,694,080	315,656	..
AGRICULTURAL PRODUCTS.				
Bran and sharps	19,736	3,690	16,046	..
Chaff	109	33	76	..
Flour	10,299	5,946	4,353	..
Grain—				
Barley	17,816	456	17,360	..
Beans and peas	12,835	6,933	5,902	..
Maize	25,024	12,476	12,548	..
Malt	41,253	25,868	15,385	..
Oats	286,102	87,924	198,178	..
Wheat	338,476	2,463	336,013	..
Hops	29,045	6,252	22,793	..
Oatmeal	16,968	17,001	..	33
Potatoes	39,618	141,077	..	101,459
Seeds (grass and clover) ..	61,974	78,519	..	16,545
Other	14,423	22,039	..	7,616
Total	913,678	410,677	503,001	..

	Year 1899.	Year 1898.	Increase in 1899.	Decrease in 1899.
	£	£	£	£
MANUFACTURES.				
Apparel	3,328	2,331	997	..
Leather	98,319	103,838	..	5,519
Phormium (New Zealand hemp)	184,411	74,556	109,855	..
Woollen manufactures ..	11,014	9,634	1,380	..
Other manufactures	80,994	63,446	17,548	..
Total	378,066	253,805	124,261	..
Miscellaneous	12,208	10,173	2,035	..
Total exports (colonial produce and manufactures) ..	11,799,740	10,324,988	1,474,752	..
Specie	14,913	68,117	..	53,204
Other exports (British and foreign)	123,682	124,850	..	1,168
Total exports ..	£11,938,335	10,517,955	1,420,380	..

The class designated "Animals and Produce" shows by far the greatest value, the sum being for 1899 £8,009,736, which includes £4,324,627 for wool and £2,088,856 for frozen meat. Notwithstanding a decrease in the wool export, the total value of exports in this class increased during the year by £315,656, on a total of £7,694,080 in 1898.

"The Mine" takes second place among the classes for total value, with an export of coal, gold, silver, and other minerals amounting to £1,644,101 for 1899, being an increase of no less than £469,558 on £1,174,543, the export for the previous year.

"Agricultural Products," principally grain, potatoes, and seeds, take third place, and show an advance of £503,001 on the value exported in 1898, every item composing the group, with the exception of potatoes, meal, and grass-seed, having largely increased.

"The Forest" shows the export for last year to be £817,743, which, on account of the development of the kauri-gum and timber industries, gives an increase of £56,373 since 1898.

"Manufactures" are set down at £378,066 in 1899, being £124,261 more than in the previous year. Phormium shows an excellent advance on the operations for 1898, with an increase of no less than £109,855 on the export of £74,556 in 1898. Woollen manufactures sent abroad increased slightly; but leather receded from £103,838 in 1898 to £98,319.

The smallest group in respect to value is "The Fisheries," which, however, shows an advance in the export of fish, but a decrease in oysters. The total for the group was £24,208 last year.

The exports of New Zealand produce or manufacture for the two last years have also to be considered in relation to quantity, and the articles are again grouped in the next table according to the same classification as that used for purposes of comparing the values.

portion for 1899 being higher than in any year since 1883. Details for ten years are given :—

CUSTOMS REVENUE PER HEAD OF EUROPEAN POPULATION.

	£	s.	d.		£	s.	d.
1890	2	9	3	1895	2	6	9
1891	2	9	7	1896	2	9	11
1892	2	11	6	1897	2	13	0
1893	2	10	4	1898	2	13	3
1894	2	6	4	1899	2	14	5

Dating from 1890, the taxation by way of Customs and excise duties together increased from £2 11s. 2d. in that year to £2 11s. 11d. in 1896, to £2 15s. 1d. in 1897, to £2 15s. 5d. in 1898, and to £2 16s. 8d. in 1899.

There was an alteration of tariff in 1895 in certain items, but the amount of duty paid in 1899 does not bear a higher proportion to the total value of imports (less specie) for that year than the duty paid in 1894, prior to the new tariff, to the imports of that year.

Under these circumstances a rise in revenue from Customs taxation would seem to indicate a greater import of taxable articles, and show that purchasing power had increased. It is at least certain that the value of imports rose from £5,990,177 (excluding specie), in 1894, to £8,613,656 in 1899, notwithstanding the change of tariff.

The tariff has been given in full in this book (see page 71). The rates of duty levied include 16s. per gallon on spirits; 30s. per gallon on perfumed spirits; 7s. per pound on cigars and snuff; 17s. 6d. per 1,000 of 2½lb. and under, and 6d. per ounce weight over 2½lb. per 1,000, on cigarettes; 3s. 6d. per pound on manufactured and 2s. on unmanufactured tobacco. Sparkling wine is charged 9s. a gallon; Australian, 5s.; other kinds, 6s.; ale and beer, 2s. The duty on tea is 4d. the pound; on cocoa, chocolate, and chicory, 3d.; raw coffee, 2d.; roasted, 5d. Sugar, molasses, and treacle pay ½d., and glucose 1d. per pound. Opium is charged 40s. per pound. The remainder of the Customs revenue, with small exception, is made up of charges on goods by weight, *ad valorem* duties, ranging from 5 to 40 per cent., and receipts from the foreign parcels post. There is also an excise duty of 1s. per pound on tobacco; 1s. 6d. per pound on cigars, cigarettes, and snuff; 3d. per gallon on beer; 9d. per pound on tinctures, &c., manufactured in the colony, containing more than 50 per cent. of proof spirit, and 3d. per pound when less than 50 per cent.

By "The Tobacco Excise Duties Act, 1896," the excise duty on cigarettes made in the colony is now (from the 31st December, 1896) 2s. 6d. per pound on machine-made and 1s. per pound on hand-made cigarettes.

"The Tobacco Act Amendment Act, 1896," enacts that all packages of manufactured tobacco shall be labelled before leaving the manufactory, and provides for the issue of warrants to use cutting-machines for cutting duty-paid manufactured tobacco for sale (or to be used in the manufacture of cigarettes by hand), and to manufacture cigarettes by hand, under certain conditions.

few other items, declined in 1899. The quantities of increase and decrease are all exhibited in the table. The percentages of increases in export of grain are, on account of the very small export in 1898, of course, exceedingly high, but, to show the degree of progress in respect of certain other important items, the proportions per cent. have been calculated:—

INCREASES.

Export of		Rate of Increase per Cent. in 1899 over Quantity in 1898.	Export of		Rate of Increase per Cent. in 1899 over Quantity in 1898.
Hops	Cwt.	580·66	Hides	No.	24·74
Flour	Tons	150·83	Timber	Ft.	23·83
Phormium	Tons	113·84	Frozen meat	Cwt.	20·24
Bacon and hams	Cwt.	84·49	Rabbit-skins	No.	19·43
Coal	Tons	58·84	Silver	Oz.	18·88
Fungus	Cwt.	54·93	Beef (salted)	Cwt.	15·80
Butter	Cwt.	40·58	Potatoes	Tons	12·83
Oatmeal	Tons	39·54	Kauri-gum	Tons	12·23
Gold	Oz.	39·05	Soap	Cwt.	9·09

DECREASES.

Export of		Rate of Decrease per Cent. in 1899 over Quantity in 1898.	Export of		Rate of Decrease per Cent. in 1899 over Quantity in 1898.
Oysters	Doz.	67·63	Sausage-skins	Cwt.	10·73
Live-stock	No.	25·95	Ale and beer	Gals.	5·24
Seeds (grass and clover)	Bush.	21·85	Tallow	Cwt.	2·46
Preserved meats	Cwt.	13·83	Wool	Lb.	1·48
Leather	Cwt.	13·14	Sheepskins and pelts	No.	0·71

The position as to value in respect of a period of twelve years, 1888 to 1899 inclusive, is presented in a table giving the domestic exports for each. The most important items of export given under the heading "Other New Zealand Produce" are coal, silver, minerals, fish, oysters, fungus, kauri-gum, timber, bacon and hams, salted and preserved meats, tallow, sheep- and rabbit-skins, hides, sausage-skins, and live-stock. The aggregate value of these in 1899 was £1,845,284.

EXPORTS OF NEW ZEALAND PRODUCE.

Calendar Year.	Wool.	Gold.	Frozen Meat.	Butter and Cheese.	Agricultural Produce.	Manufactures	Other N.Z. Produce.	Total.
	£	£	£	£	£	£	£	£
1888	3,115,098	914,309	628,800	197,170	905,907	233,383	1,260,461	7,255,128
1889	3,976,375	785,490	783,374	213,945	1,424,297	569,880	1,288,647	9,042,008
1890	4,150,599	751,360	1,087,617	207,687	1,289,864	547,947	1,393,687	9,428,761
1891	4,129,686	1,007,172	1,194,724	236,933	894,467	420,357	1,516,755	9,400,094
1892	4,313,307	951,963	1,033,377	318,204	1,035,637	367,677	1,345,703	9,365,868
1893	3,774,738	915,921	1,085,167	354,271	716,546	345,636	1,365,164	8,557,443
1894	4,827,016	887,865	1,194,545	366,483	817,655	224,958	1,266,626	9,085,148
1895	3,662,131	1,162,181	1,262,711	378,510	326,029	188,702	1,409,889	8,390,153
1896	4,391,848	1,041,428	1,251,993	411,882	572,355	198,081	1,309,749	9,177,336
1897	4,443,144	980,204	1,566,286	553,122	495,175	197,601	1,360,735	9,596,267
1898	4,645,804	1,080,691	1,698,750	539,466	410,677	253,805	1,695,795	10,324,988
1899	4,324,627	1,513,180	2,088,856	713,617	913,678	378,066	1,867,716	11,799,740

SECTION VI.—EXPORTS AND TOTAL TRADE.

THE value of all the exports in 1899, exclusive of horses and forage sent to South Africa with the New Zealand Contingent, was £11,938,335; the value of New Zealand produce exported, £11,799,740: an average of £15 14s. 8d. per head of population, against £14 0s. 6d. for the previous year. The increase in the value of exports of New Zealand produce for 1899 over that for 1898 amounts to £1,474,752, a substantial advance of 14·28 per cent. This is a considerably higher rate of increase than the results for the year 1898 showed over those of 1897, when the amount was £728,721, and the percentage 7·59.

The value of merchandise imported in 1899 was, as previously shown, £8,613,656, so that the value of New Zealand produce exported during the year (£11,799,740) shows an excess of £3,186,084 over the imports; and it is worthy of note that the amount paid for interest and sinking fund of the public debt for the year ended 31st March, 1899, was £1,767,468. The value of New Zealand produce exported is thus proved to have exceeded the value of goods imported by a sum nearly double the charges of the public debt. It is evident, therefore, that in addition to the quantity required for home consumption, the colony was able to produce not only sufficient to pay for all goods imported, but also to meet the interest and other charges on moneys borrowed by the General Government, still leaving a substantial surplus—a position which, when associated with rising imports, must be considered as showing a very satisfactory aspect. The interest and sinking fund on so much of the debt of the local bodies as was raised outside the colony was less than £400,000 for the year ended 31st March, 1899.

A comparative statement of exports according to value for the two years is given, showing the amounts for various principal articles, being the produce or manufacture of the colony, classified according to their nature into groups:—

	Year 1899.	Year 1898.	Increase in 1899.	Decrease in 1899.
THE MINE.	£	£	£	£
Coal	83,085	50,381	32,704	..
Gold	1,513,180	1,080,691	432,489	..
Silver, and minerals	47,836	43,471	4,365	..
Total	1,644,101	1,174,543	469,558	..

NUMBER OF FLOCKS, 1890 TO 1899.

Size of Flocks.	1890.	1892.	1894.	1896.	1898.	1889.
Under 500	7,662	8,822	10,314	12,028	12,886	12,719
500 and under 1,000 ..	1,528	2,033	2,427	2,605	2,708	2,656
1,000 and under 2,000 ..	854	1,193	1,409	1,460	2,412[*]	2,519[†]
2,000 and under 5,000 ..	586	761	933	892		
5,000 and under 10,000 ..	283	314	345	340	341	363
10,000 and under 20,000 ..	236	231	230	231	231	204
20,000 and upwards ..	160	176	179	147	144	138
Total	11,309	13,530	15,837	17,703	18,722	18,599

[*] From 1,000 to 2,500, 1,798 flocks; from 2,500 to 5,000, 614 flocks.

[†] From 1,000 to 2,500, 1,880 flocks; from 2,500 to 5,000, 639 flocks.

It will be apparent that the tendency of increase is generally towards the multiplication of the smaller flocks, whose owners are better able to cope with the rabbit difficulty than the large runholders.

Export of Rabbit-skins.

Prior to 1878 rabbit-skins were a very small item in the exports, but in that year the number sent out of the colony amounted to 3,951,209. Ten years after (1888) the export had risen to 11,809,407, from which it increased to 17,041,106 in 1893, the greatest number as yet exported in a year. From 1895 the fall was rapid, and the export for 1898 only reached 6,607,934 skins, but in 1899 there was an upward tendency, the number exported being 7,891,648.

The figures for the years in which there has been decline are quoted :—

Year.	Number of Rabbit-skins exported.	Year.	Number of Rabbit-skins exported.
1893 ..	.. 17,041,106	1897 ..	.. 8,099,334
1894 ..	.. 14,267,385	1898 ..	.. 6,607,934
1895 ..	.. 15,229,314	1899 ..	.. 7,891,648
1896 ..	.. 10,828,612		

From the above it will be seen that the importance of the export has until last year very much diminished. The fall, represented in money value, has been :—

Year.	Value of Rabbit-skins exported.	Year.	Value of Rabbit-skins exported.
	£		£
1893 ..	.. 138,952	1897 ..	.. 47,472
1894 ..	.. 87,993	1898 ..	.. 51,607
1895 ..	.. 85,022	1899 ..	.. 81,118
1896 ..	.. 65,599		

While the amount of money received for this produce of the colony shows less profit than formerly, it may be a satisfactory result, as seemingly indicating some abatement of the rabbit pest. Large quantities of frozen rabbits are now exported, and are alluded to in the remarks on the frozen meat industry on the next page.

Export of Sheepskins and Pelts.

These form a more important article of export at the present time than the rabbit-skins, though in the year 1888 the position was the reverse as regards value in money. In 1888 the number of sheepskins and pelts sent away from New Zealand was 1,646,401, against 4,960,054 in 1899, a rise of 201·27 per cent. for the period between those years. The value increased from £83,574 to £268,230, or 220·95 per cent. Figures for the last six years are quoted:—

Year.	Export of Sheepskins and Pelts. No.	Year.	Export of Sheepskins and Pelts. No.
1894	2,681,552	1897	3,688,051
1895	3,230,539	1898	4,995,325
1896	3,001,791	1899	4,960,054

Export of Tallow.

Besides wool and meat, tallow is largely exported, and since the year 1888, when 136,460 cwt. were sent away, the export increased to 347,160cwt. in 1898, falling in quantity to 338,620 cwt. in 1899, the value, however, being greater, as will be seen from the figures given below. In value this export considerably exceeds that of either sheepskins or rabbit-skins, and the money is indeed not much below the total for those two articles taken together. The six latest years show the following results:—

TALLOW EXPORTED.

Years.	Cwt.	£	Years.	Cwt.	£
1894	199,400	204,499	1897	310,200	259,964
1895	263,560	260,999	1898	347,160	302,141
1896	222,540	208,821	1899	338,620	311,649

Frozen Meat exported.

Frozen meat now takes second place among the exports of New Zealand produce. In 1899, 1,865,827 cwt., valued at £2,088,856, were shipped in the colony. An account of the development of the industry was given in a special article in the Year-book, 1894. The total export for each year since the commencement of the trade has been:—

Year.	Lb.	Year.	Lb.
1882	1,707,328	1891	110,199,082
1883	9,853,200	1892	97,636,557
1884	28,445,228	1893	100,262,453
1885	33,204,976	1894	114,827,216
1886	38,758,160	1895	127,018,864
1887	45,035,984	1896	123,576,544
1888	61,857,376	1897	157,687,152
1889	73,564,064	1898	173,798,576
1890	100,934,756	1899	208,972,624

The above figures for 1898 include 112,635 cwt., or 4,251,596, of frozen rabbits and hares in the skin; and those for 1899 include 48,137 (1,948 cwt.) of hares, and 4,832,357 rabbits, weighing

127,361 cwt., valued at £111,664, so that these animals can hardly now be looked upon as wholly a nuisance.

To ascertain the total value of the meat export in 1899 it is necessary to take into consideration, with the amount of £2,088,856, value of frozen meat before stated, £12,973 for frozen fish; also the value of preserved meats, £90,910; of salted beef and pork, £7,831; and of bacon and hams, £14,364.

Gold exported.

The amount of gold exported in 1899 was 389,570 oz., an increase of 109,395 oz. on the quantity exported in 1898.

The total quantity of gold entered for duty to the 31st December, 1899, which may be reckoned as approximately the amount obtained in the colony, was 14,235,285 oz., of the value of £55,966,498. For fuller information see Section XIV., "Mining."

Grain exported.

The value of the grain exported in 1899 was £721,824. The grain exports were made up as under:—

	Bushels.	£
Wheat	2,901,676	338,476
Oats	3,520,734	286,102
Barley	125,549	17,816
Malt	175,853	41,253
Maize	187,932	25,024
Peas and beans	71,406	12,836
Rye and unenumerated	2,865	317
Total quantity and value ..	6,986,015	£721,824

Compared with the previous year the quantity and value of grain exported in 1899 show vast increase; the total for 1898 having been only 1,045,980 bushels of all kinds, valued at £136,120.

Until last year the decline in the export of wheat had been very great, as will be seen by the following figures:—

Year.	Wheat exported. Bushels.	Year.	Wheat exported. Bushels.
1890 ..	.. 4,467,026	1896 ..	.. 453,123
1892 ..	.. 2,460,774	1898 ..	.. 10,090
1894 ..	.. 228,904	1899 ..	.. 2,901,676

The imports of wheat during 1898 exceeded the exports by upwards of 50,000 bushels, but in 1899 the imports were practically nil, the small quantity introduced into the colony being for seeding purposes only.

In oats, also, the very large increase in quantity exported in 1899 is noteworthy:—

Year.	Export of Oats. Bushels.	Year.	Export of Oats. Bushels.
1891 ..	.. 4,052,414	1896 ..	.. 2,247,053
1892 ..	.. 3,830,444	1898 ..	.. 816,210
1894 ..	.. 1,963,288	1899 ..	.. 3,520,734

Similarly, with barley, the export rose from 2,665 bushels in

RISE IN THE EXPORT OF CERTAIN PRINCIPAL ARTICLES, THE PRODUCE OF THE COLONY, 1895-1899.

(See also following diagram.)

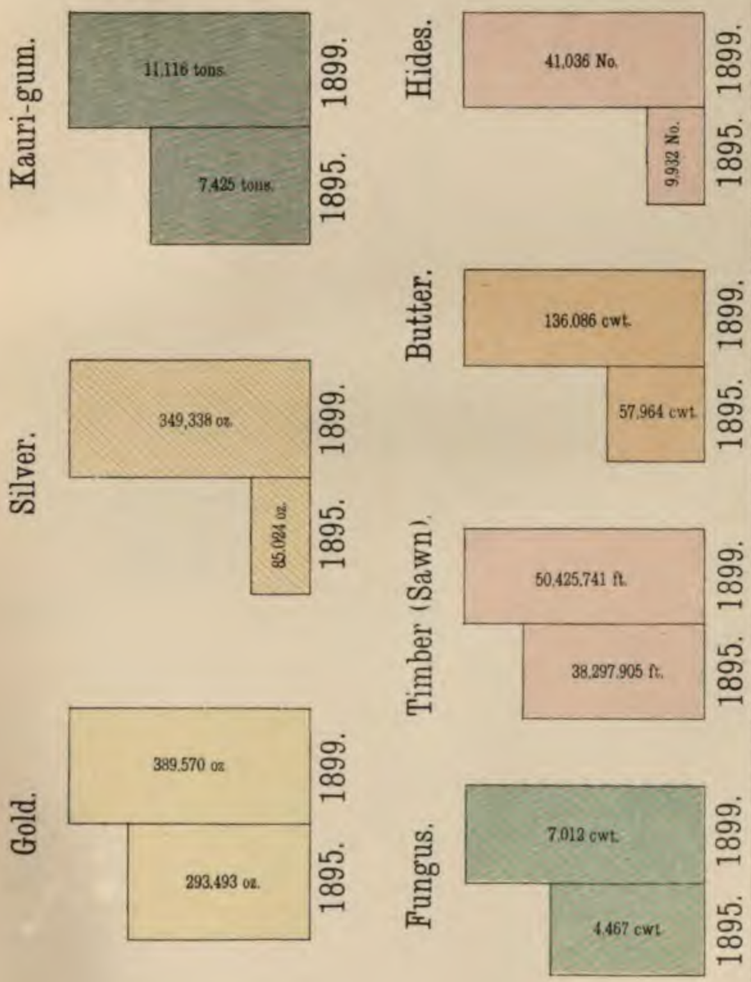
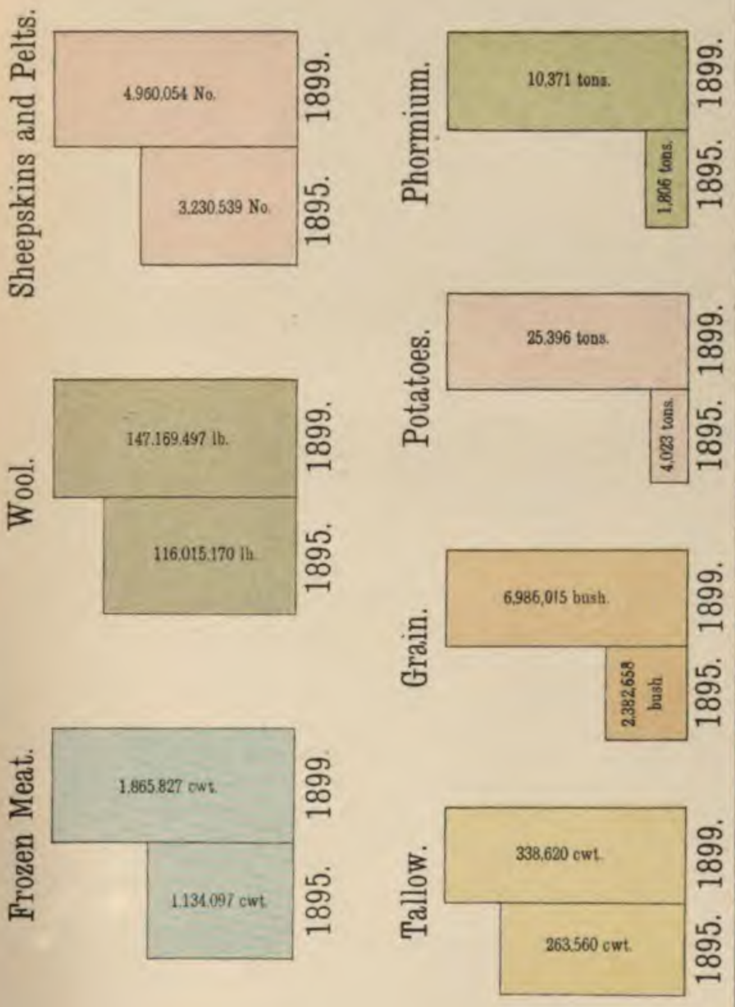


DIAGRAM No. 4.

RISE IN THE EXPORT OF CERTAIN PRINCIPAL ARTICLES, THE PRODUCE OF THE COLONY, 1895-1899—continued.



1898 to 125,549 bushels in 1899; beans and peas show 71,406 bushels exported in 1899, against 28,188 bushels in the previous year; maize, 187,932 bushels against 91,079 bushels. The export of malt also increased, the quantities having been 175,853 bushels in 1899, and 97,748 in 1898.

A further increase in the exports of grain may be confidently looked for in 1900, the reports of a good harvest being general throughout the colony, although the acreage under cereals has considerably decreased:—

	1898-99. Acres.	1899-1900. Acres.
Land in wheat (for threshing) ..	399,034	269,749
" oats " ..	417,320	398,243
" barley " ..	45,671	48,003

Butter and Cheese exported.

The total quantity of butter and cheese exported in the past twelve years, and the amount of either commodity sent to the United Kingdom is tabulated:—

Year.	Total Export of Butter	Butter Exported to the United Kingdom.	Total Export of Cheese.	Cheese Exported to the United Kingdom.
	Cwt.	Cwt.	Cwt.	Cwt.
1888	29,995	11,460	36,682	25,436¼
1889	37,955	21,099	26,558	7,633
1890	34,816	26,579	40,451	31,043
1891	39,430	28,989	39,770	29,565
1892	53,930	41,509	41,493	30,000
1893	58,149	52,363	46,201	41,567
1894	60,771	58,845	55,655	54,540
1895	57,964	55,194	76,743	73,369
1896	71,353	60,092	71,372	58,692
1897	99,002	79,849	77,683	67,681
1898	96,801	80,814	68,711	41,412
1899	136,086	121,502	69,440	40,901

Of the butter exported in 1899, 121,502 cwt., valued at £508,978, were shipped to the United Kingdom; 6,938 cwt., value £29,651, to New South Wales; 2,871 cwt., value £11,907, to Victoria; 2,343 cwt., value £10,283, to Tasmania; 1,191 cwt., value £5,162, to Western Australia; 356 cwt., value £1,450, to Fiji; 74 cwt., value £335, to Cape Colony and Natal; and 694 cwt., value £3,521, to the South Seas.

Of the cheese exported, 40,901 cwt., valued at £81,951, were sent to the United Kingdom; 21,315 cwt., value £43,825, to New South Wales; 1,770 cwt., value £3,984, to Victoria; 3,418 cwt., value £7,516, to Western Australia; and 1,243 cwt., value £2,660, to the other Australasian Colonies. While the quantity of butter exported in 1899, 136,086 cwt., shows an increase of 354 per cent. on the quantity exported in 1888, the increase in the export of cheese during the twelve years has been at the rate of 89 per cent.—69,440 cwt. in 1899, as against 36,682 cwt. in 1888.

Phormium exported.

Phormium, of which 10,371 tons (excluding 304 tons of tow), valued at £184,411, were exported in 1899, shows vast improvement in the export on comparing the figures for last year with those for 1898, when the quantity sent away was only 4,850 tons. Outside of the question of prices, a large permanent development of this industry depends on the cultivation and careful selection of the plants used, and on improvements in the method of preparing the fibre.

Kauri-gum exported.

The advance in this item to 11,116 tons exported in 1899 is again a substantial one. The value was £607,919, or an average of £54 13s. 9d. per ton. Full information as to the uses of this resin and the kauri-gum industry generally is given in a special article in Part III., embracing interesting matter from the report of the Royal Commission which investigated the whole subject in 1898.

Exports from different Ports, &c.

The following table gives the values of the exports from each port in New Zealand for the last two years, arranged in order of magnitude for 1899:—

	1899.	1898.
	£	£
Lyttelton	2,311,293	1,934,636
Wellington	1,896,291	1,888,075
Auckland	1,860,604	1,676,152
Dunedin	1,316,385	886,689
Napier	988,466	1,113,242
Invercargill and Bluff	751,881	629,670
Timaru	726,476	512,379
Wanganui	382,625	308,120
New Plymouth	336,965	241,790
Greymouth	314,342	234,754
Poverty Bay	283,906	353,155
Oamaru	205,609	207,106
Wairau and Picton	149,549	137,113
Kaipara	136,219	98,664
Waitara	77,391	90,584
Nelson	75,736	43,589
Patea	48,737	41,350
Westport	33,552	43,233
Hokitika	31,467	68,409
Tauranga	35	..

Although Auckland, as was seen previously, had the largest import trade for the year 1899, Lyttelton and Wellington take first and second places respectively in exports.

The increase in value of exports during 1899 was £429,696 at Dunedin, £376,657 at Lyttelton, £184,452 at Auckland, £122,211 at Invercargill, and only £8,216 at Wellington. Napier shows a decrease of £124,776.

Details of all Exports, 1899.

Articles exported.		Quantities.		Value in Sterling.	
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.
				£	£
Acid, acetic	lb.	..	3,796	..	56
Acid, carbolic ..	〃	..	20	..	1
Agricultural implements	..	..	..	1,195	143
Alkali—					
Soda silicate ..	cwt.	..	300	..	150
Potash, and caustic potash	〃	..	40	..	65
Ambergris	lb.	5	..	100	..
Animals, living—					
Birds	No.	9	..	3	..
Cattle (horned) ..	〃	597	..	4,318	..
Dogs	〃	22	..	328	..
Goats	〃	6	..	3	..
Horses	〃	219	11	10,665	2,215
Lions	〃	..	2	..	200
Pigs	〃	183	..	343	..
Poultry	〃	2,806	..	392	..
Sheep	〃	4,362	..	6,637	..
Apparel and slops ..	..	..	..	3,328	2,839
Arms, ammunition, and explosives—					
Cartridges	No.	3,500	10,700	12	23
Cartridge-cases ..	〃	10,000	2,500	11	14
Detonators for dynamite, &c. ..	〃	..	41,500	..	56
Dynamite	lb.	..	200	..	17
Firearms	No.	..	25	..	144
Fuse	coils	..	2,275	..	62
Ordnance stores ..	..	..	..	..	55
Powder, sporting ..	lb.	..	1,775	..	168
Shot	cwt.	..	7	..	12
Bacon and hams—					
Bacon	cwt.	1,888	..	5,392	..
Hams	〃	2,488	..	8,972	..
Bags and sacks—					
Cornsacks	doz.	..	2,933	..	680
Unenumerated ..	〃	714	1,758	107	261
Basketware and wickerware	..	..	..	11	12
Beer	galls.	16,323	8,018	1,545	1,766
Belting, leather ..	lb.	..	100	..	10
Belting, other than leather	..	..	..	..	31
Beverages, non-alcoholic—					
Aerated and mineral waters,	doz.	2,652	12	428	4
Limejuice, unsweetened	galls.	..	16,989	..	733
Bicycles and tricycles ..	No.	4	174	55	1,692
Materials for ..	..	..	..	113	1,117
Biscuits—					
Fancy and other kinds	lb.	3,017	..	61	..

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Biscuits—*continued.*			£	£	£
Ship's plain .. cwt.	3,006	..	2,257	..	2,257
Blacking	..	..	..	65	65
Blue .. .. lb.	..	324	..	6	6
Boats .. .. No.	7	2	272	250	522
Bones .. .. tons	36	..	137	..	137
Books, &c., printed	..	..	1,629	2,187	3,816
Boots and shoes .. doz.	91	234	369	808	1,177
Bran .. .. tons	5,679	..	14,426	..	14,426
Brass—					
Pigs, bars, tubes, or sheets cwt.	..	26	..	51	51
Manufactures	..	..	12	219	231
Bricks, Fire .. .. No.	1,200	..	12	..	12
Brushware and brooms ..	..	..	9	17	26
Building materials—					
Unenumerated	..	..	..	82	82
Butter .. .. cwt.	136,086	..	571,799	..	571,799
Candles .. .. lb.	..	525	..	16	16
Canvas	..	..	..	30	30
Cards, playing .. packs	..	96	..	2	2
Carpeting and druggeting ..	..	..	..	490	490
Carriages, &c.—					
Carriages .. .. No.	13	2	311	19	330
Carts, drays, and wagons "	34	..	341	..	341
Perambulators .. "	2	..	6	..	6
Casks, empty .. No.	1,356	1,676	531	771	1,302
Cement .. .. barrels	20	46	11	42	53
Chaff .. .. tons	44	..	109	..	109
Chains .. .. cwt.	..	2	..	2	2
Cheese .. .. "	69,440	..	141,818	..	141,818
Chinaware	..	..	..	426	426
Coals .. .. tons	89,480	4,363	83,085	3,638	86,723
Cocoa and chocolate .. lb.	..	5,298	..	243	243
Coffee—					
Raw .. .. "	..	9,052	..	280	280
Roasted .. .. "	458	512	29	34	63
Coke .. .. .. tons	18	..	9	..	9
Confectionery, unenumerated lb.	7,776	2,568	192	141	333
Copper manufactures	..	..	..	100	100
Copra .. .. tons	..	273	..	3,083	3,083
Cordage .. .. cwt.	976	124	1,919	314	2,233
" iron and steel "	..	20	..	48	48
Cork, cut	..		..	24	24
Cotton piece-goods, namely,—					
Calico, white and grey ..	..	..	..	1,616	1,616
Cheese-cloth	..	..	..	5	5
Shirtings	..	..	..	195	195
Tubular-woven cotton cloth ..	..	..	..	97	97
Waterproof material ..	..	..	..	11	11

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
			£	£	£
Cotton piece goods—*continued.*					
Unenumerated	..	..	..	7,363	7,363
Cotton—					
Raw .. .. lb.	..	6,473	..	97	97
Waste .. .. cwt.	½	6	1	12	13
Cutlery	..	..	..	274	274
Doors .. .. No.	373	..	..	269	269
Drapery	..	..	142	1,514	1,656
Drugs, chemicals, and druggists' wares—					
Chemicals n.o.e.	..	..	347	1,247	1,594
Drugs, druggists' sundries, and apothecaries' wares ..	..	..	187	227	414
Medicinal barks, leaves, &c. ..	..	..	5	12	17
Disinfectants	..	..	..	45	45
Sheep-dip	..	..	264	302	566
Earthenware	..	..	272	2,089	2,361
Eggs .. .. doz.	1,685	..	75	..	75
Engine-packing .. cwt.	¼	1½	1	3	4
Essential Oils—					
Other kinds .. lb.	..	5	..	7	7
Fancy goods and toys.. ..	..	..	980	1,448	2,428
Curiosities	..	..	262	39	301
Fireworks	..	..	..	3	3
Fish—					
Dried, pickled and salted cwt.	293	42	338	82	420
Potted and preserved lb.	278,719	59,980	7,954	1,359	9,313
Frozen .. .. cwt.	9,642	..	12,973	..	12,973
Ova	..	..	170	..	170
Fishing-tackle	..	..	..	10	10
Flour .. .. tons.	1,643	..	10,299	..	10,299
Foods, animal—					
Unenumerated	..	..	87	2	89
Foods, farinaceous—					
Arrowroot .. lb.	..	450	..	5	5
Maizena and cornflour "	336	2,400	7	27	34
Unenumerated	..	..	105	..	105
Fruits—					
Bottled and preserved doz.	315	142	120	45	165
Dried: Currants .. lb.	..	9,962	..	129	129
Raisins .. .. "	..	31,967	..	657	657
Unenumerated .. "	190	11,562	6	254	260
Fresh: Lemons .. "	..	950	..	6	6
Other kinds .. "	145,930	68,430	1,200	262	1,462
Fruit-pulp and partially-preserved fruit .. .. lb.	25,898	..	336	..	336
Fungus .. .. cwt.	7,012	..	10,593	..	10,593
Furniture and upholstery ..	..	..	561	294	855

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
			£	£	£
Furniture, knife, and plate powder and polish	..	..	..	37	37
Furs	..	..	30	..	30
Glass bottles, empty	..	..	40	371	411
Glassware	..	..	93	396	489
Glue and size.. .. cwt.	554	..	338	..	338
Glycerine .. .. "	418	..	552	..	552
Gold .. .. .. oz.	389,570	16	1,513,180	65	1,513,245
Grain and pulse—					
Barley .. .. bush.	125,549	..	17,816	..	17,816
Beans and peas .. "	71,404	2	12,835	1	12,836
Maize .. .. "	187,932	..	25,024	..	25,024
Oats .. .. "	3,520,734	..	286,102	..	286,102
Rye .. .. "	2,741	..	267	..	267
Wheat .. .. "	2,901,676	..	338,476	..	338,476
Unenumerated .. "	110	14	44	6	50
Grease .. .. cwt.	163	19	83	20	103
Grindery	..	..	..	38	38
Gum, kauri .. .. tons	11,116	1½	607,919	68	607,987
Haberdashery	..	..	..	375	375
Sewing-cottons, silks, and threads	..	..	45	21	66
Hair .. .. cwt.	538	..	3,181	..	3,181
Hardware, holloware, and ironmongery	..	..	649	3,342	3,991
Hats and caps .. doz.	43	62	46	137	183
Hay and straw .. tons	527	..	1,583	..	1,583
Hemp .. .. "	..	5	..	250	250
Hides .. .. No.	41,036	..	36,095	..	36,095
Honey .. .. lb.	25,480	..	359	..	359
Hops .. .. cwt.	6,228	73	29,045	146	29,191
Horns and hoofs .. tons	51	..	856	..	856
Hosiery	..	..	699	539	1,238
Indiarubber and guttapercha goods	..	..	..	648	648
Ink, printing .. .. lb.	..	320	..	11	11
" writing	..	..	..	10	10
Instruments, musical—					
Pianofortes.. .. No.	..	16	..	539	539
Unenumerated	..	..	..	208	208
Instruments, optical	..	..	..	22	22
" scientific ..	..	..	10	208	218
" surgical and dental	..	..	..	207	207
" surveying ..	..	..	..	163	163
Iron and steel—					
Bar, bolt, and rod .. tons	6½	12½	98	189	287
Bolts and nuts .. cwt.	..	1½	..	2	2
Galvanised manufactures ..	..	..	89	147	236
Hoop .. .. tons	..	2 3/10	..	22	22

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Iron and steel—*continued.*			£	£	£
Pipes and fittings .. tons	..	14	..	138	138
Sheet and plate	..	7	..	93	93
Sheet, galvanis'd corrugated cwt	..	1,989	..	2,070	2,070
Staples and standards ton	..	$\frac{1}{10}$	..	2	2
Tanks, each 400 galls. No.	..	115	..	401	401
Wire, fencing, barbed tons	..	4	..	56	56
Wire, fencing, plain .. „	..	20	..	200	200
Wire netting	..	..	..	53	53
Unenumerated .. tons	..	124	..	259	259
Jams, jellies, and preserves lb.	25,260	9,178	523	163	686
Jellies, concentrated .. „	..	347	..	11	11
Jewellery	..	..	374	650	1,024
Lamps, lanterns, and lampwick	..	..	..	50	60
Lard.. .. .. cwt.	186	..	381	..	381
Lead, pigs and bars .. tons	..	1	..	11	11
Leather .. .. cwt.	17,365	20½	98,319	184	98,503
Leather manufactures—					
Boot and shoe vamps, uppers, and laces	..	..	..	50	50
Unenumerated	..	..	..	62	62
Lime .. .. bush.	766	..	39	..	39
Linseed .. .. centals	1,126	..	514	..	514
Machinery and machines—					
Agricultural	..	..	4,638	1,746	6,384
Dairying	..	..	12	1,053	1,065
Electric	..	..	5	882	887
Engines, gas .. No.	..	2	..	164	164
Flour-milling	..	..	..	84	84
Gas-making	..	..	..	211	211
Mining	..	..	16,097	1,830	17,927
Portable and traction engines .. .. No.	..	1	..	250	250
Printing	..	..	..	584	584
Refrigerating	..	..	22	665	687
Sewing and knitting No.	..	126	..	357	357
Wood-working	..	..	..	653	653
Woollen-milling	..	..	15	21	36
Unenumerated	..	..	325	2,230	2,555
Materials for, and parts of ..	..	..	..	232	232
Malt.. .. .. bush.	175,858	..	41,258	..	41,258
Manures—					
Bonedust .. .. tons	50	22	250	126	376
Guano .. .. „	..	10	..	25	25
Unenumerated .. „	45	..	222	..	222
Marble, dressed or polished, and manufactures	..	..	35	2	37
Matches and vestas—					
Wax .. .. gross	15	584	9	63	72

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
			£	£	£
Matches and vestas—*continued.*					
Wooden .. .. gross	..	2,096	..	203	203
Mats and matting	..	..	560	16	576
Meal, oaten .. .. centals	43,755	..	16,968	..	16,968
Meats—					
Beef, fresh .. .. cwt.	14	..	15	..	15
" frozen .. "	172,345	..	197,009	..	197,009
" salted .. "	7,141	..	7,709	..	7,709
Kidneys, frozen .. "	5,910	..	8,523	..	8,523
Lamb " .. carcases =cwt.	1,272,525 416,896	..	594,157	..	594,157
Mutton, frozen (whole carcases).. .. carcases =cwt.	2,102,533 1,090,522	..	1,120,649	..	1,120,649
Mutton (joints), frozen cwt.	50,021	..	53,749	..	53,749
Pork, salted .. "	65	..	122	..	122
Veal, frozen .. "	153	..	198	..	198
Other kinds, frozen .. "	671	..	1,139	..	1,139
Rabbits, frozen in the skin No. =cwt.	4,828,397 127,276	..	111,610	..	111,610
Rabbits, frozen (skinned) No. =cwt.	3,960 85	..	54	..	54
Hares, frozen in the skin No. = cwt.	48,137 1,948	..	1,768	..	1,768
Potted and preserved "	48,053	3	90,910	9	90,919
Extract of meat, Bovril lb.	3,954	..	522	..	522
Unenumerated .. cwt.	127	..	296	..	296
Medicines, patent and proprietary	..	..	663	350	1,013
Metal, Manufactures of ..	..	..	682	2,724	3,406
Anchors . .. No.	..	13	..	14	14
Typewriters .. "	..	7	..	116	116
Metal, old .. .. cwt.	2,433	2,170	1,170	2,082	3,252
Milk, preserved .. lb.	643,559	35,772	12,012	763	12,775
Millinery—					
Feathers, ornamental ..	..	..	130	..	130
Other kinds	..	..	..	29	29
Minerals—					
Sulphur .. .. tons	1,227	..	3,483	..	3,483
Manganese . "	135	..	407	..	407
Platinum .. .. oz.	7	..	23	..	23
Quartz, auriferous .. tons	5⅒	..	153	..	153
Scheelite ore .. "	31½	..	2,788	..	2,788
Unenumerated .. "	45¼	1	144	20	164
Mustard .. .. lb.	..	528	..	29	29
Nails .. .. cwt.	..	339	..	317	317
Nuts—					
Almonds in shell .. lb.	..	687	..	15	15
Barbary .. .. "	..	553	..	30	30
Unenumerated .. "	337	..	7	..	7

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
				£	£	£
Oakum	cwt.	..	10	..	20	20
Oars	No.	..	72	..	22	22
Oil—						
Castor, bulk ..	galls.	..	393	..	47	47
Colza	"	..	1,370	..	182	182
Cocoanut	"	6,780	..	652	..	652
Fish, penguin, and seal	"	..	19,790	..	1,333	1,333
Linseed	"	..	3,403	..	453	453
Mineral, kerosene ..	"	..	85,976	..	3,954	3,954
Olive, bulk	"	..	848	..	120	120
Unenumerated, bulk	"	..	4,632	..	339	339
Oilmen's stores ..	..	..	..	477	971	1,448
Onions	cwt.	51,144	..	8,089	..	8,089
Oysters	doz.	254,810	..	2,128	..	2,128
Paints and colours—						
Ground in oil ..	cwt.	..	201	..	285	285
Mixed ready for use ..	"	..	189	..	683	683
Unenumerated ..	"	90	20½	49	26	75
Paper—						
Bags	cwt.	490	..	420	..	420
Printing	"	..	110	..	162	162
Hangings	pieces	..	240	..	3	3
Wrapping	cwt.	673	209	579	254	833
Writing	"	..	8	..	28	28
Unenumerated ..	"	..	5	..	22	22
Pearl barley	"	394	73½	191	48	239
Peas, split	"	..	1	..	1	1
Perfumery—						
Perfumed spirits ..	galls.	..	21½	..	33	33
Unenumerated ..	..	..	..	1	36	37
Phormium	tons	10,371	..	184,411	..	184,411
Tow	"	304	..	1,150	..	1,150
Photographic goods ..	..	..	..	76	284	360
Pickles	galls.	41	533	8	96	104
Pictures, paintings, drawings, engravings, and photographs ..		..	..	1,107	448	1,555
Picture-frames and mounts ..		..	..	1	..	1
Pitch	cwt.	352	..	71	..	71
Plants, shrubs, &c. ..	..	..	..	428	50	478
Plateware	..	..	..	8	2,128	2,136
Pollard and sharps ..	tons	1,508	..	5,310	..	5,310
Potatoes	"	25,396	..	39,618	..	39,618
Printing materials ..	..	..	..	..	191	191
Provisions n.o.e. ..	..	..	..	853	196	1,049
Pumps	..	..	..	272	128	400
Quicksilver	lb.	..	1,500	..	166	166
Rags	cwt.	721	..	602	..	602
Rice	"	..	727	..	557	557

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
			£	£	£
Rugs	..	..	2,574	58	2,632
Saddlery and harness	..	..	1,085	176	1,261
Harness oil, composition, and leather-dressing	..	..	..	10	10
Saddlers' ironmongery and materials	..	..	7	..	7
Salt .. .. .. tons	..	6	..	20	20
Sashes, window .. pairs	459	..	225	..	225
Sauces .. .. galls.	..	155	..	85	85
Sausage-skins .. cwt.	8,806	349	42,823	1,635	44,458
Seeds—					
Grass and clover .. "	38,317	38	61,974	83	62,057
Unenumerated	..	..	1,266	418	1,684
Shells, pearl .. .. cwt.	..	206	..	680	680
Ship-chandlery, n.o.e.	..	..	534	591	1,125
Silk piece-goods	..	..	..	343	343
Silver .. .. oz.	349,338	..	40,838	..	40,838
Skins—					
Calf and other .. No.	9,161	..	1,163	..	1,163
Rabbit .. .. No. = lb.	7,891,648 1,112,076	..	81,118	..	81,118
Sheep, with wool .. No. =lb.	284,536 1,913,120	..	39,332	..	39,332
Sheep, without wool No. =lb.	4,675,518 9,044,232	..	228,898	..	228,898
Soap—					
Common .. .. cwt.	3,684	33	2,438	33	2,471
Powder, extract of soap, &c. ..	..	..	16	..	16
Unenumerated .. lb.	2,800	11,587	47	347	394
Specie—					
Gold	..	..	..	5,349	5,349
Silver	..	..	..	9,564	9,564
Specimens, illustrative of natural science	..	..	790	100	890
Spices, unground .. lb.	..	12,327	..	5,379	5,379
Spirits—					
Bitters, cordials, and liqueurs galls.	..	89	..	81	81
Brandy .. .. "	..	1,547	..	743	743
Geneva and gin .. "	..	940	..	236	236
Methylated .. "	10	..	2	..	2
Rum .. .. "	..	473	..	101	101
Whiskey .. .. "	..	9,426	..	3,971	3,971
Starch .. .. lb.	..	642	..	9	9
Stationery	..	..	1,263	589	1,852
Stone—					
Building .. .. tons	49	..	44	..	44
Pumice .. .. "	820	..	2,230	..	2,230

Details of all Exports, 1899—*continued.*

Articles exported.	Quantities		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Stone—*continued.*			£	£	£
Unwrought .. .. tons	63	..	167	..	167
Sugar—					
Refined .. .. lb.	454,361	146,742	3,876	1,112	4,988
Glucose .. .. „	..	4,964	..	36	36
Tallow .. .. tons	15,779	..	282,899	..	282,899
Mutton stock, and oleomargarine .. .. tons	1,125	..	28,329	..	28,329
Oil .. .. „	27	..	421	..	421
Tarpaulins and tents	..	..	11	..	11
Tanning materials—					
Bark .. .. tons	347	13	1,930	119	2,049
Other kinds	..	..	..	35	35
Tar	..	..	9	9	18
Tea .. .. .. lb.	..	108,896	..	4,491	4,491
Textile piece-goods, other than silk, cotton, linen, or woollen	..	..	15	512	527
Articles made up from, other than apparel	..	..	..	10	10
Timber—					
Logs, hewn .. sup. ft.	1,322,096	..	4,067	..	4,067
Sawn, undressed .. sup. ft.	44,568,398	..	166,876	..	166,876
„ dressed .. „	4,535,247	..	25,806	..	25,806
Staves .. .. No.	5,656	..	34	..	34
Unenumerated	..	..	518	..	518
Tin, sheet .. .. cwt.	..	10	..	86	86
Tinware	..	..	369	125	494
Tobacco—					
Manufactured .. lb.	..	40,623	..	3,005	3,005
Cigars .. .. „	..	2,764	..	797	797
Cigarettes .. .. „	..	3,004	..	968	968
Tobacco-pipes and cases ..	..	..	..	4	4
Tools and implements—					
Sheepshears	..	..	..	75	75
Spades, shovels, and forks ..	..	..	..	64	64
Unenumerated	..	..	45	131	176
Turpentine .. .. gals.	..	894	..	145	145
Twine	..	..	415	70	485
Binder .. .. cwt.	1,791	..	3,524	..	3,524
Umbrellas and parasols ..	..	..	216	97	313
Varnish and gold size .. gals.	..	571	..	188	188
Vegetables, fresh, dried, or preserved	..	..	260	48	308
Vinegar .. .. gals.	60	8	7	1	8
Watches .. .. No.	..	54	..	102	102
Wax, beeswax .. cwt.	2	..	14	..	14
Whalebone .. .. „	23	½	545	15	560
Wine—					
Australian .. .. gals.	..	258	..	125	125

DETAILS OF ALL EXPORTS, 1899—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Wine—*continued.*				£	£	£
Sparkling	gals.	..	267	..	474	474
Other kinds ..	"	..	757	..	428	428
Woodenware	..	..	..	1,507	1,796	3,303
Wool—						
Greasy	lb.	114,118,871	..	3,074,050	..	3,074,050
Scoured	"	16,676,246	..	705,908	..	705,908
Sliped	"	15,174,070	..	503,341	..	503,341
Washed	"	1,200,310	..	41,328	..	41,328
Woollen piece-goods ..	..	..	..	7,355	1,034	8,389
" blankets ..	pairs	915	90	1,085	43	1,128
Woolpacks	doz.	..	40	..	50	50
Yarns	..	..	..	..	62	62
Zinc—						
Plain sheet.. ..	cwt.	..	212	..	197	197
Spelter	"	295	1,949	275	1,353	1,628
Goods, miscellaneous—						
Manufactured ..	..	..	..	99	127	226
Unmanufactured ..	..	..	..	1,402	611	2,013
Parcels Post	..	..	..	10,806	..	10,806

Total Value of Trade.

The value of the total trade of New Zealand advanced from £13,431,804 in the year 1886 to £20,677,968 in 1899. But of these amounts some portion was coin. Excluding the specie, the figures for 1886 are £12,853,736, and for 1899, £20,537,078.

Year.	Total Trade.	Imports.	Exports.	Imports (excluding Specie).	Exports (excluding Specie).	Excess of Exports over Imports (excluding Specie).
	£	£	£	£	£	£
[illegible]	13,431,804	6,759,013	6,672,791	6,319,223	6,534,513	215,290
[illegible]	13,111,684	6,245,515	6,866,169	6,064,281	6,680,772	616,491
[illegible]	13,709,225	5,941,900	7,767,325	5,430,050	7,403,206	1,972,156
[illegible]	15,650,727	6,308,863	9,341,864	5,980,583	9,183,954	3,203,371
[illegible]	16,072,245	6,260,525	9,811,720	5,928,895	9,569,316	3,640,421
[illegible]	16,070,246	6,503,849	9,566,397	6,431,101	9,560,859	3,129,758
[illegible]	16,477,907	6,943,056	9,534,851	6,742,544	9,490,920	2,748,376
[illegible]	15,896,879	6,911,515	8,985,364	6,494,279	8,680,845	2,186,566
[illegible]	16,019,067	6,788,020	9,231,047	5,990,177	9,221,550	3,231,373
[illegible]	[illegible]	6,400,129	8,550,224	6,115,953	8,518,119	2,402,166
[illegible]	[illegible]	7,137,320	9,321,105	7,035,379	9,299,907	2,264,528
[illegible]	[illegible]	8,055,223	10,016,993	7,994,201	9,741,222	1,747,021
[illegible]	[illegible]	8,230,600	10,517,955	8,211,409	10,449,838	2,238,429
[illegible]	[illegible]	8,739,633	11,938,335	8,613,656	11,923,422	3,309,766

The trade for these years has been selected for exhibition in tabular form because during each of the series there was an excess of exports over imports, whereas previously the reverse obtained, and the colony was purchasing to an extent not covered by the value of the export. During the last fourteen years the excess of exports over imports, excluding money sent to and from the colony, amounted to a total sum of £32,905,712.

How different the foregoing conditions were from those previously obtaining will be seen by observing the balance of trade for the years 1881 to 1885 inclusive :—

Year.	Excess of Imports over Exports. £	Year.	Excess of Imports over Exports. £
1881 ..	.. 1,406,898	1884 ..	.. 235,981
1882 ..	.. 1,948,485	1885 ..	.. 539,239
1883 ..	.. 761,938		

The gradually declining excess of imports turned in 1886 and 1887 to a small excess of exports, but subsequently the excess of exports was very great, and attained the sum of £3,640,421 in the year 1890.

Again considering the results for the fourteen years, 1886–99, during which the balance was in favour of the exports, the external trade is shown for each year per head of population, the calculations being made exclusive as well as inclusive of specie, for the purpose of arriving at exact conclusions as regard trade in goods. In the year 1894 the imported money amounted to a sum of £797,843, making a substantial difference in the rates.

Excluding specie, the trade per head of population increased from £22 1s. 7d., in 1886, to £27 7s. 8d. in 1899: imports from £10 17s. 1d. to £11 9s. 8d., and exports from £11 4s. 6d. to £15 18s.

Year.	Including Specie.			Excluding Specie.		
	Total Trade per Head of Mean Population (excluding Maoris).	Imports per Head of Mean Population (excluding Maoris).	Exports per Head of Mean Population (excluding Maoris).	Total Trade per Head of Mean Population (excluding Maoris).	Imports per Head of Mean Population (excluding Maoris).	Exports per Head of Mean Population (excluding Maoris).
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1886	23 1 5	11 12 2	11 9 3	22 1 7	10 17 1	11 4 6
1887	21 19 8	10 9 5	11 10 3	21 7 5	10 3 4	11 4 1
1888	22 12 11	9 16 4	12 16 7	21 4 0	8 19 5	12 4 7
1889	25 9 11	10 5 6	15 4 5	24 15 9	9 15 6	15 0 3
1890	25 13 10	10 0 2	15 13 8	24 19 4	9 11 0	15 8 4
1891	25 10 4	10 6 6	15 3 10	25 7 10	10 4 3	15 3 7
1892	25 13 2	10 16 3	14 16 11	25 5 6	10 9 11	14 15 7
1893	24 0 9	10 9 0	13 11 9	22 18 11	9 16 5	13 2 6
1894	23 11 9	9 19 11	13 11 10	22 7 11	8 16 5	13 11 6
1895	21 11 10	9 4 10	12 7 0	21 2 8	8 16 8	12 6 0
1896	23 5 8	10 1 11	13 3 9	23 2 2	9 19 1	13 3 1
1897	25 0 11	11 3 3	13 17 8	24 11 7	11 1 7	13 10 0
1898	25 9 3	11 3 7	14 5 8	25 6 11	11 3 1	14 3 10
1899	27 11 5	11 13 1	15 18 4	27 7 8	11 9 8	15 18 0

The highest record of trade (excluding specie) was that for 1874, when the rate per head was £41 4s. 5d., the imports, in consequence of the large expenditure of borrowed money, amounting at that time to £24 17s. per head, against £11 9s. 8d. in 1899.

It has been customary to leave out the Maoris in estimating the sum per head, for their industries and necessities swell the volume of trade in comparatively so slight a measure that the amount per head of European population can be more truly ascertained by omitting them altogether.

Trade with different Countries or Colonies.

The trade with the United Kingdom in 1899 amounted to £14,954,160, comprising 72·32 per cent. of the total.

With the Australian Colonies and Tasmania, trade was done during 1899 to the value of £3,044,864; of which New South Wales claimed £1,866,900, and Victoria £819,900, made up as follows:—

EXPORTS FROM NEW ZEALAND.

	£
To New South Wales, 1899	1,118,699
" Victoria, 1899	412,822

EXPORTS TO NEW ZEALAND.

	£
From New South Wales, 1899	748,201
" Victoria, 1899	407,078

The latter amounts, in each case, represent the declared values of the imports into New Zealand from the colonies mentioned, not their export value as given in the New South Wales and Victorian returns.

Included in the exports to New Zealand from New South Wales is coal to the quantity of 98,786 tons, valued at £92,142.

The trade with Fiji and the other Pacific Islands (including Norfolk Island) decreased from £487,501 in 1898 to £451,393 in 1899.

Both imports from and exports to the United States in 1899 show a falling off when compared with the previous year's figures.

Of the exports to the United States in 1899 the values of the principal New Zealand products were: Coal, £2,572; kauri-gum, £337,073; hides, £9,223; sheepskins, £15,173; rabbit-skins, £8,390; sausage-skins, £22,119; wool, £7,750; and phormium, £15,553.

The table on the following page shows the value of the total trade with the United States for each of the past ten years, 1890 to 1899 inclusive, during which period the trade has increased considerably.

TRADE WITH THE UNITED STATES.

Year.	Imports from		Exports to		Total Trade.
	Atlantic Ports.	Pacific Ports.	Atlantic Ports.	Pacific Ports.	
	£	£	£	£	£
1890	321,047	34,348	364,332	218,802	938,529
1891	317,913	43,882	395,386	119,822	877,008
1892	344,799	36,828	459,314	61,483	902,424
1893	345,743	33,635	430,842	65,706	875,926
1894	359,196	35,495	230,829	56,367	681,887
1895	351,823	42,410	298,536	18,103	710,872
1896	419,689	73,151	263,564	63,025	819,429
1897	521,939	106,105	252,013	123,083	1,003,140
1898	700,555	99,856	337,059	286,074	1,423,544
1899	687,906	87,403	387,614	45,885	1,208,808

The development in the decennial period is at the rate of 28·80 per cent., or an increase in value of £270,279.

The trade with India and Ceylon reached a total of £336,110, against £322,122 in 1898. The imports—tea, rice, castor-oil, woolpacks, &c.—were reckoned at £332,833, leaving a balance of only £3,277 for exports.

Trade of the Australasian Colonies.

The following table gives the value of the imports and exports of the Australasian Colonies for the year 1898 :—

Colony.	Total Value of		Excess of Exports over Imports.	Excess of Imports over Exports.
	Imports.	Exports.		
	£	£	£	£
Queensland	6,007,266	10,856,127	4,848,861	..
New South Wales	24,453,560	27,648,117	3,194,557	..
Victoria	16,768,904	15,872,246	..	896,658
South Australia	6,184,805	6,795,774	610,969	..
Ditto, Northern Territory ..	113,960	182,596	68,636	..
Western Australia	5,241,965	4,960,006	..	281,95
Tasmania	1,650,018	1,803,369	153,351	..
New Zealand	8,230,600	10,517,955	2,287,355	..

In the preceding table is given the total trade inwards and outwards of each colony, counting twice over the value of goods produced in one colony and carried thence into another, and reckoning the same goods three times where they are imported from without into one colony and re-exported thence in the same year into another colony. But, in order to form a just idea of the trade of the Australasian Colonies as a whole, it is necessary to eliminate the intercolonial traffic altogether. From the following table the value of imports and exports exchanged between the various colonies has accordingly been excluded :—

EXTERNAL TRADE OF AUSTRALASIA.

Year.	Total Trade.	Imports.	Exports.	Excess of Imports.	Excess of Exports.
	£	£	£	£	£
1885 ..	72,220,444	41,136,038	31,084,406	10,051,632	..
1890 ..	75,143,818	38,451,160	36,692,658	1,758,502	..
1891 ..	84,565,778	41,325,033	43,240,745	..	1,915,712
1892 ..	75,325,933	34,529,501	40,796,432	..	6,266,931
1893 ..	67,788,738	27,925,990	39,862,748	..	11,936,758
1894 ..	65,192,202	26,063,630	39,128,572	..	13,064,942
1895 ..	67,624,317	27,425,725	40,198,592	..	12,772,867
1896 ..	74,511,262	34,420,596	40,090,666	..	5,670,070
1897 ..	83,569,568	37,862,741	45,706,827	..	7,844,086
1898 ..	85,600,442	37,310,583	48,289,859	..	10,979,276

It will be observed that in the year 1885 the excess of imports over exports for Australasia amounted to no less a sum than £10,051,632, and that five years later the excess of imports had fallen to £1,758,502. In 1891 the position was completely reversed, the exports exceeding the imports by £1,915,712. This excess increased to £6,266,931 in the following year (1892), and to £13,064,942 in 1894, but decreased to £12,772,867 in 1895, to £5,670,070 in 1896, and was £7,844,086 in 1897, and £10,979,276 in 1898.

The trade per head of the population in each of the colonies in 1898 was :—

TRADE PER HEAD OF THE POPULATION IN 1898.

Colony.	Mean Population.	Imports.			Exports.			Total Trade.		
		£	s.	d.	£	s.	d.	£	s.	d
Queensland	492,602	12	3	11	22	0	9	34	4	8
New South Wales	1,334,850	18	6	5	20	14	3	39	0	8
Victoria	1,172,952	14	5	11	13	10	8	27	16	7
South Australia	358,085	17	5	6	18	19	7	36	5	1
Ditto, Northern Territory ..	4,904	23	4	9	37	4	8	60	9	5
Western Australia	169,271	30	19	4	29	6	1	60	5	5
Tasmania	174,530	9	9	1	10	6	8	19	15	9
New Zealand	736,260	11	3	7	14	5	8	25	9	3

But the values of the exports of the Australian Colonies, more especially New South Wales, Victoria, and South Australia, are largely increased by the inclusion of articles the produce or manufacture of other colo untries.

The value of home productions or manufactures exported from each colony in 1898, and the rate per head of mean population, were as follow:—

Colony.	Home Produce exported.	Per Head of Population.		
	£	£	s.	d.
Queensland	10,482,668	21	5	7
New South Wales	17,727,067	13	5	7
Victoria	11,778,883	10	0	10
South Australia	2,487,009	6	18	11
Ditto, Northern Territory	179,823	36	13	4
Western Australia	4,820,420	28	9	7
Tasmania	1,720,697	9	17	2
New Zealand	10,324,988	14	0	6

The next table sets forth the amount of the trade of each of the above-named colonies with the United Kingdom in 1898:—

Colony.	Imports from the United Kingdom.	Exports to the United Kingdom.	Total Trade with the United Kingdom.
	£	£	£
Queensland	2,559,244	4,352,067	6,911,311
New South Wales	7,744,418	7,734,880	15,479,298
Victoria	6,195,134	6,740,420	12,935,554
South Australia	1,974,818	2,306,202	4,281,020
Ditto, Northern Territory	11,822	27,574	39,396
Western Australia	2,051,872	2,293,652	4,345,524
Tasmania	465,544	431,518	897,062
New Zealand	5,148,833	8,265,499	13,414,332

The statement appended shows the relative importance of the Australasian Colonies as a market for the productions of the United Kingdom:—

EXPORTS OF HOME PRODUCTIONS FROM THE UNITED KINGDOM, IN 1898, TO—

	£
British India and Ceylon	30,906,727
Germany	22,525,987
Australasia	21,105,728
United States	14,716,489
France	13,706,246
Cape of Good Hope and Natal	12,119,810
Russia	9,227,968
Belgium	8,802,075
Holland	8,618,719

The exports to other countries did not amount to £7,000,000 in any one case.

The Australasian Colonies as a whole, with a population of about 4,500,000, thus take the third place in importance as consumers of British produce, the exports thereto being more than two-thirds the value of similar exports to British India, with its 290,000,000 inhabitants.

SECTION VII.—MANUFACTORIES AND WORKS.

Information respecting manufactories and works is only collected once in every five years, at the time of the census. The figures which have been published relating to the year 1896 will be found fully detailed in the Year-book of 1897, and more shortly in that for 1899, but, owing to changed conditions and recent developments, it is not considered advisable to republish them. Another census will be taken in March, 1901, when fresh information will be obtained showing the full magnitude of the industries of the colony, both as to number and value of production.

SECTION VIII.—EDUCATION.

The replies given by householders to the inquiry on the census schedules for 1896 showed that in every 100 persons living (excluding Chinese), 80·60 per cent. could read and write, 2·89 could read only, and 16·51 were unable to read. The proportion per cent. unable to read fell from 23·72 in 1878 to 21·19 in 1886, and further to 16·51 in 1896. Of those who could read only, the proportion diminished from 6·76 in 1878 till in 1896 it stood at 2·89 per cent.

The following shows the percentages at each census period :—

	Read and Write.			Read only.			Cannot read.		
	Persons.	M.	F.	Persons.	M.	F.	Persons.	M.	F.
1878 ..	69·52	72·11	66·33	6·76	5·91	7·80	23·72	21·98	25·87
1881 ..	71·32	73·31	68·94	5·63	5·01	6·39	23·05	21·68	24·67
1886 ..	74·01	75·40	72·41	4·80	4·36	5·31	21·19	20·24	22·28
1891 ..	77·27	77·97	76·48	3·97	3·74	4·24	18·76	18·29	19·28
1896 ..	80·60	81·06	80·09	2·89	2·71	3·08	16·51	16·23	16·83

Besides the improvement in the degree of education shown above, which is observed in respect of females as well as males, it will be noticed that whereas the difference in the percentage able to read and write is very considerably in favour of the male sex for the year 1878, the proportions approximate more closely at each successive census year, until in 1896 there are found to have been 80·09 per cent. of the female sex who could read and write, against 81·06 of males. Doubtless when the results of the next census are known, the education of the females, taking as a standard the knowledge of reading and writing, will be equal to that of the males. But with a system of free and compulsory education this would be expected in time, and the census results have no longer the degree of importance or interest they had years ago.

In considering the proportions of the population at different age-periods the improvement in education is even more clearly proved. It is found that in 1896, of persons at the age-period 10–15 years, 98·73 per cent. were able to read and write, while 0·65 per cent. could merely read, and 0·62 per cent. were unable to read. The proportion who could not read increased slowly with each succeeding quinquennial period of age until at 50–55 years it stood at 4·04 per cent. At 75–80 years the proportion was 7·05, and at 80 and upwards it advanced to 8·07. Similarly, the proportion of persons who could read only increased from 0·65 at 10–15 years to 3·66 at the period 50–55 years, and again to 9·74 at 80 and upwards. The better education of the people at the earlier ages is thus exhibited.

Further evidences of improved education will be found in the portion of this work relating to marriages, where it is shown that the proportion of persons in every 1,000 married who signed by mark has fallen very greatly since 1881. The figures for the sexes in the year 1881 were 32·04 males and 57·94 females, against 6·19 males and 7·02 females in 1896.

Schools.

It has been found impossible to collect the full statistics relating to schooling for the year 1899 in time for this work, and the figures for the previous year are accordingly given.

The number of schools, teachers, and scholars, as in December, 1898, is shown in the following summary:—

Description of Schools.	Number of Schools.	Teachers.	Scholars.
EUROPEAN.			
Public (Government) schools (scholars other than Maoris and half-castes)	1,624	3,664	129,266
Public (Government) schools (half-castes living among Europeans)			992
Colleges, grammar, and high schools (aided or endowed)	25	146	2,706
Private and denominational schools (excluding Maori scholars)	294	779	14,782
Industrial schools and orphanages	8	..	718
Native village schools, European children attending	..	..	280
Private Native boarding-schools, European children attending	..	..	24
School for Deaf-mutes	1	5	50
Jubilee Institute for Blind	1	2	27
Totals—European	1,953	4,596	148,845

Description of Schools.	Number of Schools.	Teachers.	Scholars.
NATIVE.			
Native village schools supported by Government (excluding European children stated above) ..	80	144	2,692
Private Native boarding-schools (maintenance of scholars paid by Government)	4	14	79
Private Native boarding-schools (maintenance of scholars paid from endowments)			132
Private Native day-schools	3	5	69
Public (Government) schools, Maoris attending	..	..	1,164
Public (Government) schools, half-castes living as Maoris attending	..	..	199
Private and denominational schools for Europeans, Maoris attending	..	..	75
Totals—Native	87	163	4,410

Thus at the end of 1898 there were 2,040 schools of all classes at which members of the European and Maori races were being educated. This was an increase of 62 on the number in 1897. The public primary schools numbered 1,624 in 1898, against 1,585 in 1897. The number of aided or endowed colleges, grammar, and high schools was 25, one more than in the previous year. The number of private schools from which returns were received by the Registrar-General was 294, an increase of 16. There were also 8 industrial schools and orphanages, public and private, as well as a school for deaf-mutes subsidised by Government, and a school for the blind.

The number of schools established for the education of the Native or Maori race was 87, six more than in 1897.

Education at the public schools is free (except that, at such as are also district high schools, fees are charged for the teaching of the higher branches) and purely secular. The attendance of all children between the ages of 7 and 13 is compulsory, except when special exemptions are granted, or a child is being otherwise sufficiently educated.

The subjects of instruction at the primary schools are required by the Education Act to be the following: Reading, writing, arithmetic, English grammar and composition, geography, history, elementary science and drawing, object-lessons, vocal music, and (in the case of girls) sewing and needlework, and the principles of domestic economy. Provision must also be made for the instruction in military drill of all boys in these schools.

Public (Government) Schools.

Compared with 1897 there was in 1898 a falling-off in the number of pupils belonging to the public schools at the end of the year, as well as in the average attendance, a fact thus commented upon in the report of the Minister of Education:—

> The capitation grants depend (for the time being) on the "working average," which is found for each school by omitting from the calculation all the attend-

ances on those half-days on which less than half the pupils on the roll are present. The working average for the year 1898 was estimated at 113,800; but the returns show that it actually was 111,636—less by 692 than the corresponding number for 1897.

The "strict average" is based upon the attendances on all the half days at which any pupils are present. The "strict average" for 1898 was 110,256, showing a decrease for the year, as compared with the previous year, of 737.

The average of the weekly roll-numbers taken throughout the year 1898 was 133,782, or 179 less than for 1897. As the strict average attendance was 110,256, we have 82·4 per cent. as the figure representing the regularity of attendance for 1898. In the previous year the average attendance was 82·9 per cent. of the average weekly roll.

School Attendance and Yearly Increase from 1877 to 1898.

Year	School Attendance.					Yearly Increase on			
	Number belonging at Beginning of Year.	Number belonging at End of Year.	Average Attendance.		Average Attendance expressed as Percentage of Roll-number.	Number belonging at Beginning of Year.	Number belonging at End of Year.	Average Attendance.	
			Fourth Quarter.	Whole Year.				Fourth Quarter.	Whole Year.
1877	...	55,688	...	...	...	...	...	...	...
1878	50,849	65,040	49,435	45,521	...	...	9,352	...	...
1879	59,707	75,566	57,301	53,067	73·8	8,858	10,526	7,866	7,546
1880	68,124	82,401	62,946	60,625	74·6	8,417	6,835	5,645	7,558
1881	74,359	83,560	63,009	61,822	74·2	6,235	1,159	63	1,197
1882	76,309	87,179	66,426	63,709	73·6	1,950	3,619	3,417	1,887
1883	79,416	92,476	70,077	67,373	74·0	3,107	5,297	3,651	3,664
1884	84,883	97,238	74,650	72,657	75·1	5,467	4,762	4,573	5,284
1885	90,670	102,407	80,183	78,327	76·6	5,787	5,169	5,533	5,670
1886	95,377	106,328	83,361	80,737	76·1	4,707	3,921	3,178	2,410
1887	99,206	110,919	87,386	85,637	77·0	3,829	4,591	4,025	4,900
1888	103,534	112,685	90,849	90,108	79·3	4,328	1,766	3,463	4,471
1889	104,919	115,456	94,308	93,374	80·3	1,385	2,771	3,459	3,266
1890	108,158	117,912	96,670	94,632	79·9	-3,239	2,456	2,362	1,258
1891	110,665	119,523	96,264	97,058	80·3	2,507	1,611	[−406]	2,426
1892	112,279	122,620	100,917	99,070	80·6	1,614	3,097	4,653	2,012
1893	114,305	124,686	99,872	98,615	78·5	2,026	2,066	[−1,045]	[−455]
1894	116,819	127,300	106,151	103,490	80·6	2,514	2,614	6,279	4,875
1895	119,900	129,856	107,222	106,622	81·4	3,081	2,556	1,071	3,132
1896	122,425	131,037	109,253	108,976	82·1	2,525	1,181	2,031	2,354
1897	123,533	132,197	110,523	110,993	82·9	1,108	1,160	1,270	2,017
1898	123,892	131,621	107,904	110,256	82·4	359	[−576]	[−2,619]	[−737]

Reference to above table shows that there has been only one other year—viz., 1893—in which the total average attendance has fallen below that of the previous year. It is significant that in both years the colony was visited by an epidemic of measles. In 1893 the attendance fell from 80·6 to 78·5 of the average roll—that is, apparently about 2,640 children were absent each day throughout the year; but the epidemic lasted for only part of the year, and each child would be away from school, say, five or six weeks. We might say, roughly, therefore, that about 20,000 school-children were affected. In 1898 the percentage of attendance fell from 82·9 to 82·4, or there was an apparent falling-off in the average attendance of about 670; the epidemic was much slighter, and the absences from school were, as a matter of fact, shorter in duration, although on medical grounds apparently no difference in the length of absence from school should be made whether the outbreak assumes, in any particular case, a mild or a malignant form. We are probably not far from the truth if we estimate that in 1898 about 7,000 school-children were affected. Quite apart from considerations of health, it appears not improbable, therefore, that by the enforcement of stricter concerted measures of quarantine, Boards and Committees might considerably lessen the interruptions to school work, and thus increase the efficiency of the work; while they might, at the same time, guard themselves against the serious loss of revenue consequent upon the prolonged prevalence of an epidemic affecting school children.

It is worthy of remark that the average daily attendance for the fourth quarter was only 107,904, or 2,619 less than that for the fourth quarter of 1897. The totals of the average daily attendance for the first three quarters of 1898 and 1897 respectively were 111,040 and 111,150, which show a much smaller decrease for 1898 than appears from a comparison of the fourth quarter.

Even if we make allowance for the sickness that affected the attendance of school-children, by adding 670 to the average attendance for the year, we still find that it is less than that of the year before.

Technical Education.

"The Manual and Technical Elementary Instruction Act, 1895," provides for the granting of subsidies to classes established for instruction in such branches of science and art as are encouraged by the Science and Art Department (South Kensington) and the City and Guilds of London Institute, and also to workshops connected with public schools; and the same Act allows part of the ordinary school-time to be given to elementary manual instruction. During 1898, subsidy was paid on classes in drawing and painting, clay-modelling, carpentry and other woodwork, plumbers' work, painters' work, ironwork, mechanical engineering, mechanics, physics, chemistry, agricultural analysis, laundry work, dressmaking and millinery, cookery, mathematics and geometry, shorthand, and bookkeeping. In several of the high schools manual and technical instruction is given as part of the school course.

There are four fully-equipped Schools of Art, the classes in which during 1898 were attended by about 1,400 students.

In connection with the Canterbury College there is an endowed School of Engineering and Technical Science, the students in which work for the university degree of B.Sc. in Engineering. Eighty-nine students attended in 1898.

The Canterbury Agricultural College has an endowment of over 50,000 acres of land, and possesses extensive buildings, and an experimental farm of a very complete character. The students work for the university degree of B.Sc. in Agriculture. There were 41 students in 1898.

There are two Government Schools of Mines located in districts in which mining is actively carried on, and the Otago University maintains a professorial chair of mining and metallurgy, to which the Government makes an annual grant of £500. The number of students in mining in 1898 was over 250, forty-seven of whom were at the Otago University.

As stated, the Act makes it lawful for any Education Board to direct that manual instruction be given in any public school under its control as if manual instruction had been included in the list of subjects prescribed in the Education Act.

With the view of encouraging attendance at technical schools and classes, arrangements have been made with the Railway Department by which teachers of classes registered with the Minister of Education may give certificates to their pupils which will enable them to obtain railway tickets at special rates.

During the year examinations were held upon papers supplied by the Science and Art Department (South Kensington), and the City and Guilds of London Institute.

The following table shows the results of examinations conducted in the colony on behalf of the Science and Art Department, London, and of the City and Guilds of London Institute:—

LONDON TECHNICAL AND ART EXAMINATIONS, 1898.

["C" represents candidates; "P" passes.]

Subjects of Examination.	Auckland.		Wanganui.		Wellington.		Wellington Sub-centres.*		Nelson.		Christchurch.		Timaru.		Dunedin.		Invercargill.	
SCIENCE AND ART DEPARTMENT.	C	P	C	P	C	P	C	P	C	P	C	P	C	P	C	P	C	P
Art.																		
Drawing in light and shade (elementary) ...	9	5	12	9	27	22	1	...	...	...	6	6	4	3	23	16	...	...
Drawing in light and shade (advanced)	7	3	6	6	14	12	...	...	4	4	7	7	...	...	12	10	...	...
Perspective (elementary)	...	...	1	1	11	10	1	...	1	...	11	11	1	1	17	14	...	...
Model drawing (elementary)	10	9	11	11	52	50	11	9	...	...	21	19	8	5	47	42	...	...
" (advanced)	8	5	3	2	11	9	...	...	4	3	8	7	...	...	13	12	...	...
Freehand drawing of ornament (elementary) ...	16	13	34	28	46	41	10	6	...	...	26	21	9	8	65	52	...	...
Freehand drawing of ornament (advanced) ...	12	11	13	11	15	14	...	...	4	3	8	8	...	...	13	13	...	...
Geometrical drawing (art)	3	3	...	...	1	1	...	...	4	3	...	...	2	2	14	12	...	...
Design (elementary)	...	...	...	...	4	3	...	...	...	...	7	5	...	...	...	...	...	...
" (advanced)	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Painting from still life	...	...	6	4	4	4	...	...	...	...	6	5	...	...	5	3	...	...
Drawing from the life	...	...	...	...	7	4	...	...	...	...	2	1	...	...	2	...	...	...
Drawing from the antique	...	...	...	...	2	...	...	...	...	...	5	5	...	...	3	1	...	...
Painting ornament in monochrome ...	3	3	3	2	...	...	...	...	...	...	...	...			1	1	...	...
Principles of ornament (elementary) ...	...	...	1	1	1	1	...	...	...	...	1	1	...	...	...	...	...	...
Students' works	...	...	11	3	37	†19	...	...	16	...	...	...	...	...	28	14	...	...
Science.																		
Practical plane and solid geometry ...	...	...	3	3	5	4	...	...	1	1	5	5	...	...	13	10	...	...
Mathematics, stages 1, 2, 3	3	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Magnetism and electricity	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
Machine construction and drawing ...	17	8	...	...	9	5	...	...	...	...	...	...			13	6	...	...
Building construction	9	7	1	1	10	8	...	...		...	6	6	...	...	11	10	...	...
Steam	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Human physiology	...	...	...		1	1	...	...	...	...		...	...	...	...	...		...
Inorganic chemistry (theory) ...	...	...	...	...	...	...	...	...	...	...		...	...	...	1	1	...	...
Agriculture	...	...	...	...	...	...	5	5	...	...	...	...	...	...	...	...	...	...
Applied mechanics	...	...	...	...	...	...		...	...	...	...	...	...	...	3	2	...	...
CITY AND GUILDS OF LONDON INSTITUTE.																		
Telegraphy and telephony	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Electric lighting (preliminary) ...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
" (ordinary)	...	...	...	...	1	1	...	...	...		...	...	...	...	...	...	...	...
Metal-plate work	...		...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
Carpentry and joinery (preliminary) ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" (ordinary) ...	1	1	...	...	6	6	...	...	...	...	...	...	...	...	2	2	...	...
Woodwork	...	...	...	...	...	...	...	...	...	...	20	17	...	...	...	...	4	4
Bookbinding	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...
Photography	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
Cookery	...	...	...	...	...	...	...	...	...	...	13	12	...	...	...	...	...	...
Mechanical engineering ...	7	3	...	...	1	...	...	...	...	...	...	...	...	...	4	2	...	...
Plumbing (preliminary) ...	8	2	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...
" (written)	5	2	...	...	14	5		...	...	...	...	...	...	...	4	4	...	...
" (practical)	4	...	...	...	11	3	...	...	...	...	...	...	...	...	...	...	...	...
Totals	123	78	105	82	296	227	28	20	34	14	152	136	24	19	301	232	4	4

Total of papers, 1,067; total of passes, 812.

* Pahiatua, Masterton, Otaki, and Westport. † Wellington also obtained three prizes for works.

The twenty-second annual report of the Minister of Education gives the following remarks on manual training and technical instruction:—

The past year (1898) has been marked by a largely increased degree of interest in the question of manual and technical education, and, apart from the direct benefits derived from the aid rendered to classes for manual training and technical instruction, the Act of 1895 is bearing fruit by educating public opinion, and by preparing the way for larger and more comprehensive measures. What has been done in Great Britain, in America, and on the Continent of Europe has become more widely known through the medium of public journals and magazines, and the recent publication of Mr. A. D. Riley's report on "Manual and Technical Instruction" (E.-5B, 1898) has undoubtedly stimulated the minds of people throughout the colony, and tended to remove misconceptions as to the aims and methods of the new movement in education.

In many primary schools in different parts of the colony an increasing amount of attention is being paid to kindergarten occupations in the infant classes, and to manual exercises intended as a continuation of them in some of the standard classes. Several of the secondary schools provide a certain amount of manual instruction; but it is doubtful how far either this work or the work done in the primary schools has been co-ordinated with the other subjects of instruction, or has become an organic part of the education given in the schools. We are, perhaps, in danger of forgetting that manual training—the specific training of the hand and eye in conjunction with the brain—involves not so much the introduction of a new subject as a change of method in the treatment of nearly all the subjects included in the school course; that it not only develops powers that would often otherwise remain dormant, but provides, amidst the complexity of the demands of modern educational systems, the key to a true co-ordination so long sought for by Herbart and other earnest teachers. If our pupils are taught by direct observation of things, and if at the same time their constructive and creative activities are called into play, the different parts of their education are truly co-ordinated, because the various subjects of instruction are all, in a real sense, co-ordinated with nature. All other co-ordinations are more or less artificial. The principle of natural co-ordination is in reality an extension of the ideas of Froebel as exemplified in the best kindergartens. The same principle can be applied throughout all education—not only in the infant classes, but also in the higher stages of primary education, in secondary, and in university education. Some of our best teachers already recognise this [illegible] and herein consists our best hope not merely for manual and technical [illegible] but for a general advance in the intellectual training of the nation.

We must come to realise the fact that, unless we assign to eye and hand their proper place in each subject, the path of progress is closed to us. [illegible] in regard to skill in the industries, technical or agricultural, [illegible] thought, in regard also to commercial or professional knowledge; [illegible] demand for technical education, which is a projecting, out of the [illegible] general education into that of special education, of the principles [illegible]

[illegible] that "manual training includes all processes that train [illegible] the mind to work in harmony." At the same time that the [illegible] trained in movements of dexterity, there are stimulated in the [illegible] of form and the appreciation of beauty, which are the [illegible] The first step towards actually realising this would [illegible] drawing in the schools, so that it might become truly a [illegible] than a mere slavish imitation of drawing-book copies. [illegible] would give rise to original design; while the con[illegible] concentrate the ideas of measurement, the perception of [illegible] the properties of matter, into creative effort.

[illegible] effects of manual training, and a sufficient justification [illegible] of general education, is that it trains the judgment [illegible] thus feeds the constructive instinct, and counter-acts the tendency of a too exclusively bookish school system towards sedentary occupations and town life; while, by opening out new avenues for the natural activities, it enables the teacher or the parent to discover more easily the natural bent of a boy or girl. The same ideas that prompt manual training will lead to making concrete teaching the basis of all mathematical instruction; to the greater use of open-air teaching in geography and the natural sciences in preference to the use of books; to work in physical and chemical science that is experimental and based on individual effort; to teaching in history that does not separate it from the political and social life of the present; possibly also to methods of language-teaching in which emphasis is laid not on the dry bones of grammar, but on the actual use of a language for speaking, reading, and writing. Fallacies die hard; were it not so, it would never be contended that these new methods give an intellectual training inferior to that given by the old bookish methods. On the contrary, we have lost the full value even of books, because they deal so much with what are to us abstractions; if the things they treat of were actually known to us, how many books would live that now are nothing but *words!* Slavery to formal examination tests has perhaps been one of the greatest obstacles to progress, and should accordingly be guarded against in the future.

In short, in order that the introduction of manual training into our primary and secondary schools may have its full beneficial effect, this training should be an organic part of the education of the schools; and, that being so, it should be given within the school-hours, and as far as possible by the ordinary teacher, who should be trained for that purpose. Unless co-ordinated naturally with the other "subjects," and therefore inevitably influencing the methods generally throughout the school, manual instruction must more or less fail. Technical education, which is specialisation in the direction of a trade after a certain stage in intellectual development has been reached,—probably even technical education will partially fail if altogether dissociated from a continued advance in general education, although the want of that has very little influence on mere manual dexterity.

The larger and more comprehensive measures referred to above should therefore include provision for manual instruction in primary and secondary schools; for domestic instruction; for the better teaching of drawing and science; for technical education in special classes, industrial, mechanical, or agricultural in character; for continuation classes; for workshops and art schools; for commercial education; for technology in university colleges; for the training of teachers; with further provision for scholarships, and for the proper direction and inspection of the whole system. Moreover, the plea for manual training and technical instruction, and, in general, for the greater use of concrete methods in teaching, has a peculiar force in reference to our Native schools, and they should therefore have a share in the benefits of any scheme that may be inaugurated. Due attention should be given also to local needs, and to the effective use of existing agencies. Altogether, the problem is not a simple one, and it would not be difficult to waste large sums of public money in attempting its solution. But, if we proceed with care, the experience of Great Britain and other countries ought to show us how to avoid many of the mistakes into which they have fallen. It seems, at all events, impossible to go back now; and the time appears to have come for a decided advance.

The figures given in the succeeding table speak for themselves: they show the administration of the resources afforded by the Act of 1895; the capitation paid to Education Boards, technical classes associations, and private adventure classes for certain subjects or groups of subjects; and the amounts of special grants in certain cases.

Manual and Technical Instruction, 1898.

School or Instructor.	Subjects of Instruction (grouped), and Average Attendance.													Payments.					
	Freehand (from Flat and Round) and Shading.	Drawing from Nature, Painting, and Modelling.	Mechanical Drawing and Engineering, and Machine Construction.	Geometry and Perspective.	Design and Ornament.	Architecture, and Building Construction.	Mathematics.	Natural and Experimental Science (Botany, Chemistry, and Physics).	Woodwork.	Plumbing (Theory and Practice).	Domestic Instruction.	English, and Commercial Subjects.	Singing.	Capitation.			Special Grants.		
														£	s.	d.	£	s.	d.
Technical Classes Association, Auckland	12	17	6	5	..	10	..	..	16	7	16	7	..	54	1	2	100	0	0
"Elam" School of Art, Auckland ..	18	..	..	54	..	..	..	..	..	..	..	..	..	58	6	9	..		
Robinson, Mr. W. I., Auckland ..	..	..	149	..	..	..	..	..	..	..	..	..	..	42	8	7	..		
Education Board, Auckland—																			
Devonport Public School	..	..	..	..	..	..	..	..	22	..	..	..	..	10	19	7	..		
Remuera Public School	..	..	..	..	..	..	..	..	9	..	..	..	..	5	19	7	..		
Education Board, Wanganui—																			
Technical School, Wanganui ..	45	60	13	19	10	5	..	17	12	..	8	12	..	110	8	1	100	0	0
Technical classes, Palmerston North..	13	..	..	27	..	..	..	..	..	..	..	..	..	23	7	9	..		
Education Board, Wellington—																			
Technical School, Wellington ..	150	111	53	108	20	24	33	..	23	34	..	21	71	370	17	9	1,500	0	0
Paraparaumu Public School ..	..	..	..	..	..	..	..	..	13	..	..	..	..	2	6	4	..		
Cross Creek Public School	..	..	..	..	..	..	..	..	12	..	..	..	..	2	6	6	..		
Mauriceville Public School	..	..	..	..	..	..	..	..	13	..	..	..	..	9	18	3	..		
Technical School, Masterton	19	..	..	..	..	..	..	9	..	..	218	36	..	108	5	8	..		
Philosophical Institute, Napier ..	..	..	..	..	..	..	..	28	..	..	..	..	..	1	15	0	..		
Hardie and Manning, Misses, Napier ..	..	..	..	..	..	..	..	..	..	..	..	18	..	29	7	5	..		
Technical Classes Association, Gisborne	..	..	..	..	..	..	..	..	..	..	..	22	..	8	3	1	..		

Education Board, Marlborough—																		
Blenheim Public School	..	..	..	..	..	..	..	..	..	..	..	40	..	15	4	8	..	
Renwick Public School	..	..	..	..	..	..	..	..	..	..	..	19	..	7	4	2	..	
Technical Classes Association, Westport	..	..	4	..	..	..	..	..	..	..	..	..	..	1	7	0	..	
Education Board, Grey—																		
Greymouth Public School	..	..	..	..	..	..	..	..	19	..	..	..	..	16	18	5	..	
Education Board, Westland—																		
Kumara Public School	..	..	..	..	..	..	..	..	10	..	..	..	..	23	1	10	..	
Canterbury School of Art, Christchurch	192	199	..	86	101	10	..	..	..	..	..	..	..	166	9	0	..	
School of Domestic Instruction, Christ'ch	..	..	..	..	..	..	..	..	..	..	99	..	..	72	4	5	70	0	0
Education Board, North Canterbury—																		
Normal School	..	..	..	..	..	..	..	..	96	..	..	..	..	47	15	0	..	
Amberley Public School	..	..	..	..	..	..	..	..	..	..	38	..	..	7	3	3	..	
Leeston Public School	..	..	..	..	..	..	..	..	8	..	..	..	..	4	6	3	..	
Young Men's Christian Assn., Christ'ch	..	..	..	..	..	..	..	..	..	..	..	12	..	29	0	4	..	
Carr, Miss A. M., Christchurch ..	..	..	..	..	..	..	..	..	..	..	..	93	..	158	0	0	..	
Digby, Mr. H. W. L., Christchurch ..	..	..	..	..	..	..	..	..	..	..	..	84	..	56	5	0	..	
Gilby, Mr. C. H., Christchurch ..	..	..	..	..	..	..	..	..	..	..	..	48	..	126	18	5	..	
Technical Classes Association, Ashburton	..	..	..	..	..	..	..	26	..	..	..	..	..	14	7	11	7	0	0
" " Dunedin	..	..	19	..	..	..	..	45	11	36	56	134	..	66	3	0	910	13	7
" " Balclutha	..	..	..	..	..	..	..	..	3	..	3	16	..	2	15	4	..	
" " Warepa	..	..	..	..	..	..	11	..	..	..	66	5	..	4	19	4	..	
" " Waiwera S.	..	..	..	..	..	..	..	..	8	..	..	..	..	2	10	0	..	
" " Romohapa	..	..	..	..	..	..	..	..	..	..	7	12	..	3	11	3	..	
" " Invercargill	..	..	..	..	..	..	..	9	36	..	9	12	..	11	17	6	30	0	0
" " Te Oneroa	..	..	..	..	..	..	3	..	..	..	..	..	..	12	16	9	..	
Education Board, Otago—																		
School of Art, Dunedin	150	18	13	118	9	43	..	..	..	..	..	..	..	198	13	7	..	
Balclutha Public School	..	..	..	..	..	..	..	..	26	..	..	..	..	9	12	4	..	
Tokomairiro Public School	..	..	..	..	..	..	..	15	17	..	..	..	..	8	18	10	..	
Kidson Hunter, Mr. A. G., Dunedin ..	..	..	..	..	..	..	..	24	..	..	..	..	..	11	17	0	..	
	599	405	257	417	140	92	47	173	354	77	520	591	71	1,918	12	1	2,717	13	7

The incidental expenditure is as follows:—

	£ s. d.
Examinations of Science and Art Department ..	57 12 8
Examinations of City and Guilds of London Institute	20 2 2
Railway fares of students	76 11 8
Railway fares of instructors	51 1 6
Freight on loan collection of works from South Kensington	2 11 10
Publications	0 16 8
Total	£208 16 6

New Zealand University.

The introduction of university education into New Zealand was effected by the Superintendent and Provincial Council of Otago, who in 1869 passed an Ordinance under which the University of Otago was established. Following closely on the founding of this institution was the establishment of the University of New Zealand under an Act of the General Assembly, "The New Zealand University Act, 1870." This University subsequently received a Royal charter, whereby the degrees which it confers are declared entitled to "rank, precedence, and consideration" throughout the British Empire "as fully as if the said degrees had been conferred by any university of the United Kingdom." It was apparently contemplated by Parliament (*vide* section 19 of the Act last quoted) that the New Zealand University and the Otago University should be amalgamated; but the negotiations for this purpose having failed the two institutions remained for some time distinct bodies. In the year 1874, however, the University of Otago surrendered or put in abeyance its power of conferring degrees, and became affiliated to the University of New Zealand, and at the same time it was stipulated that the University of New Zealand should not directly exercise functions of teaching.

In the year 1873 the Superintendent and Provincial Council of Canterbury passed an Ordinance for founding "The Canterbury College," and the college was accordingly established with the same standard of university education as that of the University of Otago, but without the power of conferring degrees.

In December, 1878, a Royal Commission on University and Secondary Education was appointed by the Governor, which met in July, 1879, and reported that two colleges, with an income of £4,000 each, ought to be established in Auckland and Wellington, and that suitable buildings, at a cost of £12,500 each, should be erected in those cities. In the following year the Royal Commission repeated these recommendations.

"The Auckland University College Act, 1882," which became law on the 13th September in that year, definitely established the college, and endowed it with a statutory grant of £4,000 per annum. By "The Auckland University College Reserves Act, 1885," three blocks of land, containing about 10,000 acres each, and a block containing about 354 acres, which had been devoted to the purpose of promoting higher education in the Province of Auckland, became vested in the Council of University College.

The Auckland University College was affiliated to the University of New Zealand by the Senate of the university on the 6th March, 1883, and on the 21st May in the same year the college was opened by the Governor.

Nothing was done for Wellington until the year 1894, when an Act was passed entitled "The Middle District of New Zealand University College Act, 1894," which said "There shall be established in the City of Wellington a college to be connected with the University of New Zealand," and provision was made for a governing body to be called the Council, but no provision was made for any pecuniary grant nor any endowment, and, though certain members of the Council were appointed, nothing could be done for want of funds.

Not until 1897 were the needs of Wellington actually attended to. In the session of Parliament that year the Right Hon. Mr. Seddon, P.C., Premier of the colony, introduced the Victoria College Act: an Act, as stated in the preamble, "to promote Higher Education by the establishment of a College at Wellington in commemoration of the sixtieth year of the reign of Her Majesty Queen Victoria," the college being intended to embrace in its work the Provincial Districts of Wellington, Taranaki, Hawke's Bay, Nelson, Marlborough, and Westland. The Act was passed on the 22nd December, 1897, and the Council was formed as provided in the Act, and the work of organization was begun. The Act provides for the payment out of the Consolidated Fund of a grant of £4,000 a year, and also requires the Council to give six scholarships each year, called "Queen's Scholarships," to persons of either sex under the age of fourteen years, upon the results of an examination under such conditions as the Council may provide. The Act further sets apart a parcel of land 4,000 acres in extent in the Nukumaru Survey District (Wellington Provincial District) as an endowment for the college.

The Council of the college has established four chairs: classics, English, mathematics and mathematical physics, and chemistry and physics; and lectureships in French, German, mental science, jurisprudence and constitutional history, general history, and political economy and law. It is intended as funds allow to add other subjects.

The New Zealand University is not a teaching body, as above explained, undergraduates hitherto for the most part keeping their terms at one or other of the affiliated institutions: the Auckland University College, the Victoria College, the Canterbury College, and the University of Otago, each of which has now a staff of professors and lecturers. On the 1st June, 1899, the number of graduates who had obtained direct degrees was 641.

The number of undergraduates on the roll of the University at that date was 2,205 (exclusive of such as had not performed any academical act for a period of ten years), but only 869 were keeping terms (not including undergraduates who had not, in the last two years, entered at a college or come up for any college or university examination), of whom 602 were males and 267 females. Eighty-six of the males and nineteen of the females were medical students. The numbers of students attending lectures at the affiliated institutions during the year 1898–99 were as follow: At the Auckland University College, 97 matriculated and 114 non-matriculated; at Canterbury College, 131 matriculated and 56 non-matriculated; at the Otago University, 234 matriculated and 35 non-matriculated. The Victoria College, before-mentioned, affords further facilities for university students, and in June, 1899, had a total of 103 students on the roll.

Private and Denominational Schools.

There were 294 private schools in the colony at the end of 1898, an increase of 16 on the number in 1897: 32 were for boys, 49 for girls, and 213 for children of both sexes. The number of pupils attending them was 14,782—namely, 6,043 boys and 8,739 girls, not counting Maoris, 49 boys and 26 girls. The number of European pupils at these schools was more than in 1897 by 335. Of the private schools, 124 were Roman Catholic, with an attendance of 10,175 pupils.

The following gives, for the past ten years, the number of private schools and of Europeans attending them, the number of Roman Catholic schools and pupils being also shown separately:—

Year.	Number of Private Schools.	Pupils.			Included in Previous Numbers.	
		Boys.	Girls.	Totals.	Roman Catholic Schools.	Pupils at Roman Catholic Schools.
1889	293	5,778	7,680	13,458	95	9,024
1890	298	5,759	7,867	13,626	108	9,474
1891	281	6,234	7,908	14,142	110	10,144
1892	274	6,321	8,135	14,456	105	10,111
1893	299	6,431	8,491	14,922	111	10,263
1894	302	6,117	8,510	14,627	117	9,953
1895	298	6,187	8,472	14,659	114	10,458
1896	283	5,845	8,102	13,947	115	9,590
1897	278	5,974	8,473	14,447	120	9,642
1898	294	6,043	8,739	14,782	124	10,175

The total number of children of European descent (including such half-castes as live among Europeans) known to be receiving education at school at the end of 1898 was 148,845; of these, 140,890 were from 5 to 15 years of age. The census showed also 6,352 children receiving tuition at home in 1896, against 8,178 in 1891. No doubt increased school accommodation in country places does away with the need for tutors and governesses to a certain extent.

The distribution of the private schools in the various provincial districts of the colony is shown in the two following tables:—

PRIVATE AND DENOMINATIONAL SCHOOLS, 1898.—SUMMARY BY PROVINCIAL DISTRICTS.

Provincial Districts.	Number of Schools.				Number of Teachers.			Number of Scholars.			Daily Average Attendance.		
	Boys.	Girls.	Mixed.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Auckland	5	10	59	74	26	138	164	1,360	2,074	3,434	1,179	1,838	3,017
Taranaki	1	1	10	12	1	26	27	157	300	457	120	241	361
Hawke's Bay	4	4	9	17	9	36	45	410	452	862	352	369	721
Wellington...	7	13	39	59	49	137	186	1,222	1,815	3,037	1,111	1,614	2,725
Marlborough	1	1	4	6	...	12	12	137	167	304	95	133	228
Nelson	3	3	10	16	9	32	41	365	507	872	321	451	772
Westland	1	...	9	10	2	20	22	282	282	564	218	254	472
Canterbury	7	10	42	59	15	138	153	1,170	1,706	2,876	988	1,437	2,425
Otago	3	7	31	41	13	116	129	940	1,436	2,376	793	1,284	2,077
Totals	32	49	213	294	124	655	779	6,043	8,739	14,782*	5,177	7,621	12,798

* Exclusive of 75 Maoris (49 boys, 26 girls).

NOTE.—Denominational schools, such as Roman Catholic and Anglican, are included in the above as private schools. Particulars for the Roman Catholic schools in December, 1898, are as under:—

SUMMARY OF ROMAN CATHOLIC SCHOOLS.

Provincial Districts.	Number of Schools.				Number of Teachers.			Number of Scholars.			Daily Average Attendance.		
	Boys.	Girls.	Mixed.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Auckland	4	7	19	30	9	65	74	833	1,244	2,077	698	1,078	1,776
Taranaki	...	1	3	4	...	14	14	109	199	308	80	159	239
Hawke's Bay	2	2	4	8	6	25	31	305	363	668	255	290	545
Wellington	3	4	12	19	22	58	80	782	1,081	1,863	717	964	1,681
Marlborough	1	1	2	4	...	9	9	127	132	259	85	98	183
Nelson	1	2	5	8	...	21	21	222	381	603	189	335	524
Westland	1	...	8	9	2	19	21	269	267	536	208	242	450
Canterbury	3	4	13	20	10	59	69	878	1,153	2,031	736	978	1,714
Otago	3	3	16	22	11	63	74	812	1,018	1,830	698	919	1,617
Totals	18	24	82	124	60	333	393	4,337	5,838	10,175	3,666	5,063	8,729

Schools for Natives.

The number of Native village schools at the end of 1898 either supported or subsidised by the Government was 80, or six more than at the end of the previous year. In addition, there were four boarding-schools for Native children, the cost of whose maintenance was partly paid either by the Government or from endowments, and three private Native day-schools. The number of Maori children attending schools during the fourth quarter of 1898 was 4,410—namely, 2,571 males and 1,839 females. These included 295 half-castes at the Native village schools who were living as members of Maori tribes, and 199 at public European schools.

The numbers at the several schools in 1897 and 1898 were as follow :—

Schools.	Maori Children attending Schools.					
	Boys.		Girls.		Total of both Sexes.	
	1897.	1898.	1897.	1898.	1897.	1898.
At public European schools ..	746	834	512	529	1,258	1,363
At Native village schools ..	1,424	1,531	1,144	1,161	2,568	2,692
At subsidised or endowed boarding-schools	103	106	103	105	206	211
At private European or Native schools	68	100	86	44	154	144
Totals	2,341	2,571	1,845	1,839	4,186	4,410

There was thus, in 1898, an increase of 230 in the number of Maori boys, and a decrease of six in the number of Maori girls attending school.

Sixty-two out of the eighty Native village schools in operation on 31st December, 1898, were under the charge of masters, and eighteen under mistresses ; there were besides sixty-three assistants, and ten sewing-mistresses. The salaries paid to the head-teachers range from £100 to £248, and those for assistants and sewing-mistresses from £7 to £50.

The expenditure on Native schools for 1898 was as follows : Teachers' salaries and allowances, £13,192 11s. 4d. ; books and school requisites, £560 17s. 1d. ; repairs and small works, £406 19s. 7d. ; inspection, £855 13s. 11d. ; boarding-schools and scholarships, £1,822 11s. 5d. ; buildings, fencing, furniture, &c., £5,584 15s. 5d. ; sundries, £167 17s. 1d. : total, £22,591 5s. 10d.

Income and Expenditure of Education Boards.

The total income of the various Education Boards for the year 1898 was £509,413. The grants by Government amounted to £463,405, an increase of £11,366 on the grants in 1897. These grants consist of (*a*) a statutory allowance of £3 15s. per child in daily average attendance, (*b*) a further capitation allowance of 1s. 6d. for scholarships, (*c*) a varying sum for school buildings, and (*d* grants for technical education. The income from reserves amounted to £38,024, and that from local receipts, interest, and miscellaneous sources to £7,984.

The total expenditure in 1898 amounted to £498,715, of which the sum of £412,374 was laid out on the maintenance of the schools, £12,649 used to meet expenses of the Boards, £13,077 spent on inspection of schools and examination of pupil-teachers, £52,720 on school buildings, £6,113 for manual and technical instruction, and £1,782 on miscellaneous services, including salaries of truant officers.

The receipts and expenditure of the Education Boards, numbering thirteen altogether, are tabulated below, with further particulars:—

RECEIPTS AND EXPENDITURE OF EDUCATION BOARDS.

Receipts.	£	s.	d.
To Balance, 1st January, 1898	14,317	17	3
Government grants—			
Maintenance	396,114	6	11
Buildings	64,733	2	6
Technical	2,557	13	8
Reserves revenues ...	38,023	15	4
Local receipts—			
Fees, donations, &c. ...	6,312	18	1
Rents, sales, &c. ...	1,308	18	5
Interest	96	7	4
Refunds, deposits, &c. ...	266	2	2
	£523,731	1	8

Expenditure.	£	s.	d.
By Boards' administration ...	12,649	0	6
Inspection and examination	13,076	16	11
Teachers' salaries and allowances, and training	366,207	5	5
Incidental expenses of schools	38,057	1	10
Scholarships	8,109	8	8
Manual and technical instruction	6,112	10	9
Interest	271	10	10
Buildings, sites, plans, &c.	52,719	18	4
Refunds and sundries ...	1,510	17	4
Balances	25,016	11	1
	£523,731	1	8

Particulars of the scholarships and the expenditure of the Boards thereon in 1898 are given in detail. The only institutions for the training of teachers are in North Canterbury and Otago. These two institutions have received grants-in-aid of £300 each.

SCHOLARSHIPS.

Education Districts.	Number held in Dec., 1898.	Boys.	Girls.	Period of Tenure.	Boards' Expenditure on Scholarships in 1898.			Annual Value, &c.
				Years.	£	s.	d.	
Auckland ...	80	52	28	3	1,561	13	4	3 at £30, 19 at £25, 21 at £20, and 37 at £15.
Taranaki ...	9	3	6	2	232	17	6	£10.
Wanganui ...	14	8	6	Varies	552	10	7	10 at £40, 1 at £20, 3 at £15.
Wellington ...	41	24	17	2	823	1	3	5 at £35, 5 at £30, 31 at £15.
Hawke's Bay ...	27	14	13	2	467	3	10	8 at £30 4s., 19 at £10 4s.
Marlborough ...	4	3	1	2	160	0	0	£40.
Nelson	6	3	3	2	368	0	10	£52 12s.
Grey	8	6	2	3	100	0	0	4 at £35, 4 at £10.
Westland ...	10	6	4	2	109	10	0	1 each at £23 and £12, 8 at £8.
North Canterbury	37	25	12	2	1,352	8	10	17 at £40, 20 at £20.
South Canterbury	23	11	12	2	415	13	6	4 at £34, 4 at £28, 1 each at £17, £12, £9, £8, £6, 10 at £4.
Otago	53	35	18	Varies	1,365	12	1	8 at £40, 8 at £35, 3 at £24, 18 at £20, 1 at £17, 15 at £15.
Southland ...	20	15	5	Varies	600	16	11	11 at £35, 9 at £20.
Totals, 1898 ...	332	205	127	...	8,109	8	8	
Totals, 1897 ...	319	199	120	...	7,769	5	5	

Income and Expenditure of Secondary or Superior Schools.

A summary of the accounts of income and expenditure for the year 1898, as furnished by the governing bodies of the secondary or superior schools in the colony, shows the total receipts to have been £58,122 18s. 2d. To this total, rents and sales of reserves contributed £24,307 9s. 8d.; interest on investments, and other receipts from endowments, £4,276 7s. 9d.; fees, £28,906 3s. 7d.; and miscellaneous, £632 17s. 2d.

The total expenditure amounted to £59,337 16s. 1d., of which sum office management and expenses absorbed £2,133 0s. 4d.; teachers' salaries, £32,358 11s. 9d.; scholarships and prizes, £2,725 18s. 7d.; buildings, furniture, insurance, rates, and rent, &c., £11,659 2s. 7d.; and other expenditure, £10,461 2s. 10d.

A summary of the accounts for the year 1898, exhibiting further details, is given below:—

SECONDARY OR SUPERIOR SCHOOLS, 1898.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
To Credit balances on 1st January, 1898	21,194	11	4	By Liabilities on 1st January, 1898	4,147	18	11
Endowment reserves sold	1,482	9	10	Office management and expenses	2,133	0	4
Rents of reserves ...	22,624	19	10	Teachers' salaries ...	32,358	11	9
Interest on investments	1,954	11	6	Boarding-school accounts	3,962	2	11
Reserves Commissioners	2,321	16	3	Examination fees and expenses	556	14	11
School fees	24,344	15	7	Scholarships and prizes ...	2,725	18	7
Boarding-school fees ...	4,561	8	0	Printing, stationery, and advertising	1,537	3	9
Books, &c., sold, and refunds	90	3	2	Cleaning, fuel, light, &c....	1,428	10	6
Sundries not classified ...	434	18	2	Buildings, furniture, rent, insurance, rates, &c. ...	11,659	2	7
Interest on current account	107	15	10	Interest	1,589	19	10
Debit balances, 31st December, 1898	3,549	18	3	Sundries not classified ...	1,386	10	11
				Credit balances, 31st December, 1898	19,311	12	9
	£82,797	7	9		£82,797	7	9

Industrial Schools.

The cost of the Government schools and the amount recovered (from Charitable Aid Boards, from parents, from sale of farm produce, &c.) are next shown:—

COST OF GOVERNMENT INDUSTRIAL SCHOOLS, 1898.

School.	Gross Cost of School.			Cost of Boarding out (Included in preceding column).			Salaries of School Staff. (Included in first column.)			Recoveries.			Net Cost.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Auckland ..	1,372	4	6	554	19	11	160	15	2	324	13	0	1,047	11	6
Burnham ..	6,180	10	5	2,593	13	9	971	3	10	2,174	6	3	4,006	4	2
Caversham ..	8,024	0	3	3,284	19	10	852	5	3	3,717	7	11	4,306	12	4
Totals ..	15,576	15	2	6,433	13	6	1,984	4	3	6,216	7	2	9,360	8	0
Salary and expenses of Visiting Officer													414	7	10
Contingencies													21	13	4
Total													9,796	9	2

The Government expenditure on the private industrial schools shows a net expenditure of £88 more than the corresponding amount for the preceding year.

GOVERNMENT EXPENDITURE ON PRIVATE INDUSTRIAL SCHOOLS, 1898.

School.	Payments.	Recoveries.	Net Expenditure by Government.
	£ s. d.	£ s. d.	£ s. d.
St. Mary's, Ponsonby (Auckland)	781 3 0	47 13 6	733 9 6
St. Joseph's, Wellington ..	491 8 7	43 1 0	448 7 7
St. Mary's, Nelson	2,095 3 6	245 13 10	1,849 9 8
Totals	3,367 15 1	336 8 4	3,031 6 9

The total number of inmates of the two kinds of industrial schools is given for the years 1897 and 1898, and the variations in the numbers boarded out, in residence, or at service :—

INMATES OF INDUSTRIAL SCHOOLS, 1897 AND 1898.

—	Boarded out.				In Residence				At Service, &c.				Totals.			
	Dec., 1897.	Increase.	Decrease.	Dec., 1898.	Dec., 1897.	Increase.	Decrease.	Dec., 1898.	Dec., 1897.	Increase.	Decrease.	Dec., 1898.	Dec., 1897.	Increase.	Decrease.	Dec., 1898.
Government Schools—																
Auckland	30	11	..	41	11	..	..	11	37	..	10	27	78	1	..	79
Burnham	165	6	..	171	100	..	8	92	264	..	31	233	529	..	33	496
Caversham	190	1	..	191	88	..	10	78	214	..	7	207	492	..	16	476
Private Schools—																
St. Mary's, Auckland	..	2	..	2	62	16	..	78	17	..	2	15	79	16	..	95
St. Joseph's, Wellington	4	..	1	3	62	2	..	64	12	9	..	21	78	10	..	88
St. Mary's, Nelson ..	7	..	1	6	258	..	13	245	67	..	3	64	332	..	17	315
St. Vincent de Paul's, South Dunedin	..	..	..	..	..	5	..	5	..	..	..	..	..	5	..	5
Totals ..	396	20	2	414	581	23	31	573	611	9	53	567	1,588	32	66	1,554

The inmates discharged from industrial schools during the year 1898 numbered 244, and the new inmates 210, so that the decrease in the number on the books is 34.

In the Government schools the policy is to board out all children of suitable age and character. The authorities of the private schools do not adopt the boarding-out system.

Foster-homes.

The following extract from the annual report of the Minister of Education, presented to Parliament during the session of 1899, respecting foster-homes for very young children, is given :—

As the industrial school system has grown up it has become more and more possible to pay an increased amount of attention to the classification of children committed under the Industrial Schools Act. Speaking generally, no difficulty has been found in providing suitable foster-homes for all very young children, and for most of the other children under twelve years of age; of the latter, some (for whom, though not actually vicious, a firmer control seems, for a time at least, desirable) are received into the schools. The schools also contain some children from twelve to fourteen, for whom foster-homes are not so easily found. Burnham and Caversham have day-schools attached to them, where the children receive instruction similar to that given in the ordinary public schools, and are examined by the Inspectors of the Education Boards. On passing the Fourth Standard, or at the age of fourteen, "inmates" are placed at service as soon as suitable situations can be found for them. The resident inmates of service age who are waiting for employment are instructed in garden, or farm, or domestic work. Boarded-out children generally remain with their foster-parents until they can be placed at service. The State, through the Managers of the schools and the Official Visitors, exercises a parent's care in guarding the interests of those placed out at service; and in many cases of boarded-out children it is gratifying to note that great assistance is rendered by the foster-parents—indeed, not infrequently the latter have shown themselves ready to pay for the services of the children they have in a certain sense adopted rather than break the home tie that has been formed. Even when circumstances have not made this course possible, evidence is not wanting that the children boarded-out for some years with foster-parents often come to regard them as real fathers and mothers, and that the moral influence of the foster-home has been that of a true home for the orphans of the State.

Both foster-homes and service-homes are inspected from time to time by the Managers, by the Visiting Officer, and by the Official Correspondents; and are under the constant supervision of ladies who voluntarily undertake the work of visiting in different districts, to whom, therefore, the thanks of the community are due for their unselfish labours.

The really difficult cases are comparatively few in number. When it is undesirable that individuals should be received into the industrial schools, special arrangements have to be made for them at corrective institutions or elsewhere. In the schools there is separation of the sexes, and the explanation already given shows that in the main there is classification as to character also.

It is to be feared that there are some of both sexes who, being above the age of committal fixed by the Industrial Schools Act, escape control altogether. For them, and for the more difficult cases already mentioned, it may be necessary at an early date to establish reformatories.

Deaf, Dumb, and Blind Institutions.

The children at the deaf-and-dumb institution at Sumner, near Christchurch, were 50 in December, 1898. The institution is under Government control. The expenditure for the year 1898 was £3,135. The children are taught to speak with the mouth, and to read articulate speech by observing the movement of the lips. The census of 1896 showed a total number of 115 deaf-and-dumb persons under 20 years of age residing in the colony, so that nearly one-half of the full number would appear to be living at the institution.

The blind pupils formerly sent to Melbourne or Sydney are now provided for in the Jubilee Institution for the Blind at Auckland. The number at the end of the year was 27. In cases where necessity has been shown, the Education Department pays at the rate of £25 a year for each pupil, recovering what is possible from parents. The number of blind persons under 20 years of age returned at the census of 1896 as living in the colony was 57.

Sunday-schools.

As to attendance at Sunday-schools, figures can only be given for years when the census was taken. For these, a comparison can be made if the teachers be included with the scholars. Proceeding on these lines, a large development is found since 1878:—

ATTENDING SUNDAY-SCHOOLS (INCLUDING TEACHERS).

Census Year.	Totals.	Males.	Females
1878	62,273	30,707	31,566
1886	99,884	48,509	51,375
1896	116,045	54,063	61,982

The excess of females over males would seem as time goes on to grow greater, both numerically and in proportion to the numbers attending Sunday-school.

The number of scholars at the Sunday-schools in 1896 was 104,934, of whom 50,096 were boys and 54,838 girls. The teachers were 11,111 of both sexes, 3,967 being males and 7,144 females.

PLACES OF WORSHIP.

The total number of buildings returned as used for public worship in 1896 was 1,987, of which 1,431 were churches or chapels. These last increased by 234, or 19 per cent. on the number returned in 1891. The schoolhouses used for worship in 1896 and 1891 were 366 and 241 for the respective years; 190 dwelling-houses were used as churches or chapels at last census. Sitting accommodation was found for 334,509 persons in all buildings utilised for public worship; and the numbers attending services amounted in the aggregate to 209,731. These numbers show increase at the rate of 20·28 and 18·46 per cent. respectively since 1891, while the increase of population during the interval between the two censuses was at the rate of 12·24 per cent.

The number of buildings, in each provincial district of the colony, used for public worship in 1896 was:—

Provincial Districts.	Churches and Chapels.	School-houses used for Public Worship.	Dwellings or Public Buildings used for Public Worship.	Number of Persons.	
				For whom Accommodation.	Attending Services.
Auckland	329	98	61	78,104	45,270
Taranaki	62	5	16	13,173	7,378
Hawke's Bay	83	20	13	17,526	11,485
Wellington	209	22	26	49,320	31,973
Marlborough	28	1	2	4,809	3,361
Nelson	93	34	11	17,963	10,521
Westland	42	3	2	7,955	5,001
Canterbury	277	61	15	62,884	42,615
Otago	308	122	44	82,775	52,127
Totals, 1896 ..	1,431	366	190	334,509	209,731
Totals, 1891 ..	1,197	241	161	278,114	177,055

The number of persons belonging to each denomination in the colony was stated under the head of "Religion" on page 107 of the Year-book, 1898.

The following gives the buildings in use for purposes of public worship by the various denominations, as returned at the census of April, 1896:—

Denominations.	Churches and Chapels.	School-houses used for Public Worship.	Dwellings or Public Buildings used for Public Worship.	Number of Persons. For whom Accommodation.	Number of Persons. Attending Services.
Church of England ..	414	105	33	76,811	48,117
Roman Catholics ..	212	3	7	53,367	36,080
Catholic Apostolic Church	1	..	..	100	50
Presbyterians	301	152	45	75,881	48,751
Methodists—					
Wesleyan Methodists*	240	60	27	55,773	35,445
Independent Wesleyans	1	1	..	259	180
Primitive Methodists ..	45	9	4	9,335	5,436
Scandinavian Methodists	1	..	..	80	50
Other Denominations—					
Baptists	34	1	1	8,630	5,653
Congregational Independents	20	5	1	6,700	3,475
Lutherans	15	1	..	1,510	806
Society of Friends ..	1	..	..	60	25
Brethren ..	27	..	9	5,309	2,049
[illegible] ..	2	..	1	362	222
Church of Christ ..	15	1	5	4,765	2,738
[illegible] ..	3	..	4	395	138
[illegible] ..	1	..	..	100	40
[illegible]	5	..	..	700	254
[illegible] ..	1	..	..	1,300	500
[illegible] ..	1	..	..	50	13
Salvation Army .	61	10	30	24,178	15,777
[illegible]	15	13	23	9,265	3,503
[illegible] .	5	..	..	810	380
[illegible]	1	..	..	90	50
[illegible]	[15]	[22]	[9]	[3,855]	[2,062]
Totals, 1896	1,421	366	190	334,509	209,731
Totals, 1891	1,197	241	161	278,114	177,055

* Including United Free Methodists and Bible Christians, which bodies amalgamated with the Wesleyan Methodist Church on 13th April, 1896.

[illegible] LIBRARIES, LITERARY AND SCIENTIFIC INSTITUTIONS.

[illegible] the number of these institutions only increased from [illegible] between the years 1891 and 1896, according to the [illegible], it will be found that the membership increased from

14,489 to 17,638, or at the rate of 21·73 per cent. There was also a large increase of books (23·83 per cent.), which numbered 330,770 in 1891, and 409,604, in 1896. In considering these facts it must be borne in mind that the population increased 12·24 per cent. in the quinquennium.

The details for all provincial districts are given, which shows that Auckland and Otago had 75 institutes each, and Canterbury 73. In membership Otago stands highest, and Auckland second; but according to number of books Auckland takes first place, Canterbury next, and Otago third.

Provincial Districts.	Number of Institutions.	Number of Members.	Number of Books.
Auckland	75	3,741	106,577
Taranaki	6	378	7,700
Hawke's Bay	17	1,513	22,955
Wellington	21	3,029	49,712
Marlborough	5	234	7,783
Nelson	25	679	27,363
Westland	7	355	6,602
Canterbury	73	3,647	93,981
Otago	75	4,062	86,931
Totals, 1896	304	17,638	409,604
Totals, 1891	298	14,489	330,770
Totals, 1886	303	13,684	292,108
Totals, 1881	225	12,868	198,520
Totals, 1878	187	12,092	173,021

separation; 32 decrees for dissolution of marriage were granted. The proceedings under the Act for the years 1893, 1896, 1897, and 1898 were as follows:—

Year.	Petitions for		Decrees for	
	Dissolution of Marriage.	Judicial Separation.	Dissolution of Marriage.	Judicial Separation.
1893	34	9	25	1
1896	55	6	36	2
1897	48	10	33	1
1898	51	13	32	2

The proportion of petitions and decrees for dissolution of marriage to the number of marriages has hitherto been higher in New Zealand than in England and Wales, but lower than in New South Wales or Victoria. The effect of the operation of the new law in New Zealand will, however, have to be experienced.

As early as 1889 an Act was passed in Victoria to allow of divorces being granted for wilful desertion, habitual drunkenness with cruelty or neglect, imprisonment under certain circumstances of either party, and adultery on the part of the husband. This multiplication of the causes for divorce has largely increased the proportion of decrees in that colony.

An Act of a similar tenor was passed in New South Wales in 1891, and brought into working in August of the following year, under which, in addition to adultery since marriage on the part of the wife, and adultery and cruelty on the part of the husband, petitions for divorce can now be granted in that colony on any of the following grounds:—

Husband *v.* wife: Desertion for not less than three years; habitual drunkenness for a similar period; being imprisoned under a sentence of three years or upwards; attempt to murder or inflict grievous bodily harm, or repeated assaults on him within one year previously.

Wife *v.* husband: Adultery, provided that at the time of the institution of the suit the husband is domiciled in New South Wales; desertion for not less than three years; habitual drunkenness for the same period; being imprisoned for three years or upwards, or having within five years undergone various sentences amounting in all to not less than three years; attempt to murder, or assault with intent to inflict grievous bodily harm, or repeated assaults within one year previously.

To entitle either party to seek relief on these grounds, he or she must have been domiciled in the colony at the time of instituting the suit for three years or upwards, and should not have resorted to the colony for the purpose of the suit. When a wife seeks for a decree on the ground of three years' desertion, if she was domiciled in New South Wales when the desertion commenced, she shall not be deemed to have lost her domicile by reason of her husband having thereafter acquired a foreign domicile.

Figures will be found in the Year-Book of 1898 showing operations under the divorce law for the three colonies compared for late years.

CRIMINAL CASES.

Charges before Magistrates.

The number of charges heard before the Magistrates' Courts in 1898 was 22,752. Repeated charges against the same person are counted as distinct. Of the charges in 1898, 518 were against persons of the aboriginal native race, a decrease of 118 on the number for the previous year.

If the Maoris be excluded, the number of charges in 1898 is found to have been 22,234, an increase of 2,285 upon the number for 1897; and the proportion per 1,000 of population was 30·19, against 27·65 in 1897.

The figures, both numerical and proportional, covering a period of seventeen years are subjoined:—

CHARGES BEFORE MAGISTRATES.

Year.	Number.	Proportion per 1,000 of Mean Population.	Year.	Number.	Proportion per 1,000 of Mean Population
1882	22,108	43·41	1894	17,353	25·55
1885	22,709	39·61	1897	19,949	27·65
1888	18,829	30·88	1898	22,234	30·19
1891	17,189	27·29			

The general results shown in the next table are borne out in a most satisfactory manner by the statistics relating to prisoners in gaol (see *post*), which also show a marked decrease in crime during the above period.

Summary Convictions, and Convictions in Superior Courts.

The summary convictions in 1898 numbered 16,991, including 349 Maoris. 712 persons, 71 of whom were Maoris, were committed for trial at the Supreme and District Courts, an increase of 131 on the number committed in 1897.

"The Justices of the Peace Act, 1882," provides that sundry indictable offences may with the consent of the accused be summarily dealt with by Magistrates. The increasing use of this provision may have affected the number of convictions in the higher Courts shown in the table on the next page.

A comparison of the number of persons in New Zealand summarily convicted during the years 1888, 1891, 1894, and 1898 shows a slight decrease in the proportion of these convictions per 1,000 of the population on the total, and also in regard to offences against the person. Offences against property show a slight rise. Dealing with the convictions in the superior Courts for all offences, the proportion per 1,000 of population is a very little higher for 1898 than that for 1888, and similarly for offences against property.

For offences against the person the proportion is the same, and for other offences there is a fall in the proportion. The figures given exclude the Maoris:—

Years.	Summary Convictions.		Convictions in Superior Courts.	
	Number.	Proportion per 1,000 of Mean Population.	Number.	Proportion per 1,000 of Mean Population.
1888—				
Offences against the person	715	1·18	42	0·07
Offences against property ..	1,246	2·06	178	0·29
Other offences	12,298	20·31	35	0·06
Totals	14,259	23·55	255	0·42
1891—				
Offences against the person	751	1·19	31	0·05
Offences against property ..	1,312	2·08	141	0·23
Other offences	10,988	17·45	42	0·07
Totals	13,051	20·72	214	0·35
1894—				
Offences against the person	724	1·07	36	0·05
Offences against property ..	1,284	1·89	199	0·29
Other offences	10,605	15·61	65	0·10
Totals	12,613	18·57	300	0·44
1898—				
Offences against the person	690	0·94	53	0·07
Offences against property ..	1,565	2·13	284	0·39
Other offences	14,387	19·54	14	0·02
Totals	16,642	22·61	351	0·48

Including 35 Maoris, the convictions in the superior Courts numbered 386 (persons). Particulars of sentences for these higher Courts, and of the punishments consequent on summary convictions in the lower Courts, are appended in two tables:—

Table showing the Sentences of Criminals Tried and Convicted in the Supreme and District Courts during Five Years.

Punishments.	1894.	1895.	1896.	1897.	1898.
Death	..	2	..	2	3
Imprisonment with or without hard labour..	256	275	253	235	286
Fined	8	..	1	3	19
Imprisonment with whipping	3	2	..	..	2
Released under "The First Offenders' Probation Act, 1886"	39	58	43	63	50
Held to bail, or awaiting pleasure of Court ..	17	22	13	12	21
Sent to lunatic asylum	..	..	1	1	3
Sent to industrial school	1	..	..	..	2
Totals	*324	†359	‡311	§316	‖386

* Including 24 Maoris. † Including 15 Maoris. ‡ Including 19 Maoris. § Including 12 Maoris. ‖ Including 35 Maoris.

TABLE showing the Punishments inflicted consequent on Summary Convictions during Five Years.

Punishments.	1894.	1895.	1896.	1897.	1898.
Fine	5,824	6,260	6,425	6,821	8,149
Fine and imprisonment	2	..	..	5	..
Fine and order made	2	2	8	..	..
Fine and recognisance	6	16	4	..	..
Imprisonment in lieu of fine ..	1,634	1,554	1,552	1,409	1,410
Imprisonment and order made ..	1	2	..	..	..
Imprisonment and recognisance ..	4	..	..	..	..
Imprisonment and whipping ..	3	1	..	1	..
Peremptory imprisonment ..	1,526	1,557	1,534	1,579	1,616
Recognisance	119	119	..	123	111
Recognisance and order made ..	9	1	..	..	..
Whipping	40	21	7	28	18
Other	3,443	3,534	4,619	4,909	5,338
Totals	12,613	13,067	14,149	14,875	16,642

N.B.—Maoris have been excluded from this table.

Drunkenness.

During the five years, 1894 to 1898 inclusive, the consumption of beer in the colony per inhabitant would seem to have increased, the proportion having been 6·9 gallons in the earlier year, against 7·9 gallons in the later one. Excluding the Maoris, the same result is found to obtain, the figures being 7·4 for the year 1894 and 8·4 for 1898. Wine and spirits show a very small increase in the consumption per head of population. The following calculations are made to show the results, including and excluding Maoris:—

CONSUMPTION OF BEER, WINE, AND SPIRITS PER HEAD OF POPULATION (INCLUDING AND EXCLUDING MAORIS).

	Including Maoris.			Excluding Maoris.		
	Beer. Gal.	Wine. Gal.	Spirits. Gal.	Beer. Gal.	Wine. Gal.	Spirits. Gal.
1894..	6·961	0·136	0·611	7·391	0·144	0·648
1895..	6·996	0·127	0·593	7·421	0·135	0·629
1896..	7·453	0·133	0·605	7·873	0·141	0·639
1897..	7·790	0·138	0·628	8·220	0·146	0·663
1898..	7·995	0·139	0·634	8·427	0·146	0·668

The actual quantities of beer, wine, and spirits used in the colony were, for the five years:—

	Beer for Consumption. Gals.	Wine for Consumption. Gals.	Spirits for Consumption. Gals.
1894 ..	5,019,973	97,934	440,305
1895 ..	5,138,170	93,138	435,431
1896 ..	5,565,040	99,473	451,679
1897 ..	5,931,550	105,060	478,136
1898 ..	6,204,700	107,595	491,846

A comparison of the convictions for drunkenness shows that excessive drinking was not so prevalent in 1898 as it was nine years previously. The proportions per 1,000 of population were 8·39 convictions in the year 1889 and 9·14 in 1890, diminishing to 6·60 in 1895, 6·82 in 1896, and 7·41 in 1898. And among the New-Zealand-born population of European descent there is evidence of less drunkenness than among persons who have come to the colony from abroad. At the census of 1896, out of the total population of New Zealand over 15 years of age, not less than 43·71 per cent. were found to have been born here; while the proportion of the convictions for drunkenness of New-Zealand-born Europeans to the total convictions was in that year less than 15 per cent.

The prison statistics show for several years back the number of distinct prisoners received into gaol after being convicted of drunkenness. The figures for the years 1885–98 are as follow (readmissions of the same person not counted):—

DISTINCT PRISONERS CONVICTED OF DRUNKENNESS RECEIVED INTO GAOL.

Year.	Number.	Year.	Number.
1885	1,200	1893	619
1887	1,038	1895	469
1889	802	1897	486
1891	694	1898	520

Here the decrease proceeds rapidly and uniformly from year to year until the year 1895, after which the figures rise somewhat, but not nearly sufficiently to bring up the number to those obtaining in 1885 and 1887, or even in 1893. The option of a fine is generally given to a person convicted of drunkenness, but there is nothing to show that the proportion of fines for this offence has increased of late, so that a fall in the number of distinct persons imprisoned may fairly be accepted as corroborative evidence of growing sobriety among the people.

In New South Wales and Victoria the consumption per head of alcoholic liquors is greater than it is here. The figures for 1896, according to Mr. Coghlan, as given in the "Seven Colonies of Australasia," are:

	Beer. Gal.	Wine Gal.	Spirits. Gal.
Victoria	11·43	1·35	0·73
New South Wales	9·14	0·61	0·73

In each of these colonies, as also in Queensland, charges for drunkenness are, in proportion to population, far more numerous than in New Zealand. The order of the colonies for the year 1898 in this respect is, to quote from Mr. Coghlan's "Wealth and Progress of New South Wales," as under:—

CHARGES OF DRUNKENNESS IN PROPORTION TO POPULATION.

New South Wales	14·5 per 1,000
Victoria	11·6 "
Queensland	14·4 "
New Zealand	7·6 "

"The Inebriates Institutions Act, 1898."

Under this law, the Governor in Council may direct that any building or establishment which is the property of the Crown shall be an institution for inebriates; and he may appoint superintendents, with other officers.

Power is also given to make regulations for the management, supervision, and inspection of these institutions, any of which may be separated into two divisions, with different scales of accommodation, and fees to be paid by patients.

An inebriate may himself make application to a Judge or Magistrate for an order committing him to an institution. Or, if the husband, wife, or any relation or friend of any inebriate applies, the Judge or Magistrate may summon the inebriate to show cause why he should not be committed; when, if necessary, he may be compulsorily dealt with.

There are penalties for improper treatment of patients, and a patient is also liable if misconducting himself. It is also enacted that, during the continuance of an order, an escaped inebriate may be retaken.

Crime amongst Maoris.

The Native population of the colony may be regarded as stationary, and comparisons of the numbers of summary convictions by the higher and lower Courts are given. Compared with the convictions in 1887 and 1888, the figures for the lower Courts are now showing a rising tendency, but the number for 1897 is swelled by 108 persons convicted of trespass, and those relating to the convictions by the superior Courts are small and fluctuating, the proportionately large increase in 1898 being caused by the inclusion of sixteen convicted of conspiring to prevent collection of taxes.

SUMMARY CONVICTIONS OF MAORIS.

Year.	Number.	Year.	Number.
1887	279	1895	316
1888	213	1896	332
		1897	450
1891	298	1898	349
1892	293		

CONVICTIONS OF MAORIS IN SUPERIOR COURTS.

Year.	Convictions.	Number of Persons convicted.
1887	11	13
1888	10	10
1891	7	7
1892	16	15
1895	17	15
1896	19	19
1897	16	12
1898	21	35

Prisoners in Gaol.

The total number of prisoners received in the different gaols of the colony during the year 1898 was 3,462, including persons awaiting trial but not convicted within the year, and counting as distinct persons repeated admissions of the same person, as well as transfers from gaol to gaol of convicts undergoing sentence. In 1897 the number received was 3,616, so that the figures for 1898 show a decrease of 154. Of 3,462 admissions for 1898, 45 were for debt, and 57 on account of lunacy; while 134 were Maoris imprisoned for various offences. If the debtors, lunatics, and Maoris be excluded, the number of persons received into gaol is reduced to 3,226, against 3,158 in 1897. In 1881, when the mean population was only 493,482 persons, the corresponding number of admissions was 4,207.

The number of persons in gaol (including Maoris) at the end of the year 1898 was not equal to that for 1888, notwithstanding the increase of population:—

PRISONERS IN GAOL (31ST DECEMBER).

Year.	Undergoing Sentence.	Debtors and Lunatics.	On Remand and awaiting Trial.	Total.
1888	605	2	34	641
1898	533	..	62	595

Of the prisoners previously convicted received in 1898, 334 men and 41 women had been convicted once; 207 men and 24 women twice; 808 men and 365 women three or more times: making a total of 1,359 men and 430 women.

Besides the returns from the Prisons Department, a separate card for each admission is furnished for every gaol. Such cards as show convictions are arranged alphabetically according to name of prisoner, and where several are found referring to the same person, all are thrown out but one; then the number of cards retained equals the actual number of distinct convicted prisoners received in the various gaols during the year. In 1898 this number (excluding Maoris) was 1,982, an increase of 98 on the number in 1897. These figures do not include children committed to the industrial schools simply on the ground that they are neglected or destitute.

The following table shows the number of distinct persons (exclusive of Maoris) received into gaol after conviction during 1898, classified according to nature of offence, religion, birthplace, and age:—

Distinct convicted Prisoners received into Gaol, 1898.

[Note.—In this table a prisoner convicted of more than one offence during the year is reckoned once only, under the heading of the principal offence—*e.g.*, a prisoner convicted three times of drunkenness, twice of vagrancy, and once of theft, is counted only once, under the heading "Theft." Debtors and lunatics received into gaol, and children committed to the industrial schools not convicted of any crime, are omitted.]

—	Offences against the Person.				Offences against Property.				Miscellaneous.						Totals.	
	Convicted on Indictment.		Summarily convicted.		Theft and Deceit.		Mischief.		Vagrancy.		Drunkenness.		Other Offences.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Religions—																
Church of England	19	2	57	1	261	9	8	2	87	44	160	40	158	6	750	104
Roman Catholic	10	...	49	2	132	18	15	2	64	42	154	49	115	2	539	115
Presbyterian	2	1	14	3	75	5	6	2	41	6	68	11	55	1	261	29
Wesleyan	2	...	5	1	29	1	2	...	5	4	10	2	14	...	67	8
Others	3	...	15	...	23	1	2	...	16	1	26	...	22	...	107	2
Totals	36	3	140	7	520	34	33	6	213	97	418	102	364	9	1,724	258
Birthplaces—																
England and Wales	10	1	32	1	122	3	5	1	65	19	127	22	111	3	472	50
Scotland	3	...	12	1	41	6	6	2	20	5	61	8	33	...	176	22
Ireland	5	1	33	...	66	9	8	1	53	34	114	43	58	4	337	92
New Zealand	12	1	36	4	207	14	10	1	39	26	55	22	94	1	453	69
Australian Colonies	1	...	8	...	41	2	1	1	11	6	20	5	21	1	103	15
Other British possessions	...	...	2	1	7	...	...	...	1	2	7	1	6	...	23	4
China	1	...	...	...	6	...	2	...	4	...	...	...	1	...	14	...
Other countries	4	...	17	...	30	...	1	...	20	5	34	1	40	...	146	6
Totals	36	3	140	7	520	34	33	6	213	97	418	102	364	9	1,724	258
Ages—																
Under 10 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10 and under 12 years	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
12 and under 15 years	...	...	...	...	5	...	4	...	...	...	...	...	...	...	9	...
15 and under 20 years	2	1	2	...	79	2	1	...	6	5	2	...	13	...	105	8
20 and under 25 years	8	...	25	...	87	5	4	...	12	13	28	7	75	...	239	25
25 and under 30 years	3	1	36	3	82	5	1	1	27	9	29	5	56	1	234	25
30 and under 40 years	8	1	41	2	115	8	7	2	48	26	107	37	89	5	415	81
40 and under 50 years	7	...	21	2	76	8	7	3	56	22	123	33	77	2	367	70
50 and under 60 years	5	...	7	...	56	3	8	...	37	21	82	16	36	1	231	41
60 years and over	3	...	8	...	19	3	1	...	27	1	47	4	18	...	123	8
Totals	36	3	140	7	520	34	33	6	213	97	418	102	364	9	1,724	258
Totals, 1897	37	2	127	7	515	40	36	4	182	84	376	110	356	8	1,629	255

The number of distinct persons (exclusive of Maoris) imprisoned after conviction, in the past ten years, counting one offence only when the same person was imprisoned more than once, with the proportion per 10,000 persons living, is added:—

Distinct Persons imprisoned after Conviction.

Year.	Prisoners.	Proportion per 10,000 of Population.	Year.	Prisoners.	Proportion per 10,000 of Population.
1889	.. 2,899	39·00	1894	.. 1,955	28·78
1890	.. 2,897	38·61	1895	.. 1,930	27·87
1891	.. 2,113	33·55	1896	.. 1,936	27·11
1892	.. 2,164	33·69	1897	.. 1,884	25·84
1893	.. 2,111	31·92	1898	.. 1,982	26·92

There has been since 1889 a decrease of 17 per cent. in the number of distinct convicted prisoners, and a reduction of 12 per 10,000 in the proportion to population. In New South Wales the proportion for 1898 was 66 per 10,000 persons.

It must be understood that the actual number of imprisonments was much in excess of the figures given, as many persons were several times imprisoned, either for offences differing in kind or for repetitions of the same offence. Thus, persons returned as imprisoned for larceny underwent other imprisonments for drunkenness, &c. Some returned as convicted of drunkenness were several times in gaol during the year for the same offence, or for another, such as assault, riotous or indecent conduct, &c. Often there were several charges preferred against the same person at the one time, of which the most serious followed by conviction has been selected.

The proportions in every 100 distinct convicted prisoners belonging to each of the four principal religious denominations, with proportions of prisoners at each age-period, and particulars as to birthplaces, will be found in the Statistical Volume for 1898, on pages 451 and 452.

Cost of Prisoners.

The prisoners in gaols during the year 1898 were maintained at a net cost to the State of £27 18s. 10d. per head, against £33 9s. 8d. in 1897.

Crime amongst the New-Zealand-born.

While the New-Zealand-born formed at the last census 63 per cent. of the whole population of the colony, they contributed in 1898 not more than 25 per cent. of the prisoners received in gaol. Of the New-Zealand-born population, however, a large number are under 15 years of age, a period of life at which there are very few prisoners; and, therefore, another comparison is necessary. It is found that the New-Zealand-born over 15 years formed 44 per cent. of the total population; but, as before stated, New-Zealanders constituted less than 25 per cent. of the total number received in gaols.

The total number of New-Zealand-born distinct prisoners (excluding Maoris) received for the year 1898—522 persons—is found to be 57 in excess of the number for 1897. Of those received in

1898, 104 were under twenty years of age. As before stated, the plan adopted in preparing the foregoing tables is to count each prisoner only once, and to exclude all who are not convicted prisoners, besides dealing only with the number received during the year, instead of with the full number in gaol, which would, of course, include those brought forward from the previous year. The comparative results for a series of years given by this method are held to be more valuable than those brought out by one which includes prisoners merely awaiting trial, and continual repetitions of the same individuals.

First Offenders' Probation Act.

Ninety-one persons were placed on probation in the year 1898, the same number as in 1897. Of these, 31 were discharged after satisfactorily carrying out the conditions of their licenses, 3 were rearrested, 1 was transferred to a lunatic asylum, and 56 remained under the supervision of Probation Officers.

Of the 1,005 persons placed on probation since the introduction of the Act in October, 1886, no less than 830 had, by the end of the year 1898, been discharged after satisfactorily carrying out the conditions of their licenses, 61 were rearrested and sentenced to various terms of imprisonment, 1 committed suicide, 2 died, 23 absconded, 1 sent to lunatic asylum, and 87 remained fulfilling the conditions of their terms of probation. The Inspector of Prisons remarks:—

"The above-quoted results prove beyond doubt that the First Offenders' Probation Act, which was placed on the statute-book of the colony to put first offenders under a term of surveillance that is calculated to give them an extra incentive to good behaviour, and to check predilections that might end in a career of crime, is satisfactorily attaining that end. A probationer has ever before his mind the inevitable consequence which will ensue should he deviate from strictest rectitude of conduct during his probation, while he is not in a position to be contaminated by the evil associations which are almost inseparable from a prison life. The State is relieved of the expense of his support, and there is much more inducement to return to the paths of honesty and industry than there would be were he under bars and bolts inside the walls of a felon's cell; and, lastly, he is not branded as a 'gaol-bird.'"

Inquests.

The number of bodies on which inquests were held in 1898 was 955, including 29 Maoris. In 723 cases the bodies were of males, and in 232 of females.

The inquests on suicidal deaths in 1898 show an increase on the number for five previous years:—

Year.		Inquests on Suicides.			Year.		Inquests on Suicides.		
		Males.	Females.	Total.			Males.	Females.	Total
1893	..	49	15	64	1896	..	58	12	70
1894	..	58	17	75	1897	..	42	11	53
1895	..	66	10	76	1898	..	69	8	77

The verdicts given at the inquests held in 1898 may be classified as under:—

Nature of Verdict.	Inquests on Persons.		
	Males.	Females.	Total.
Accident	312	58	370
Disease and natural causes ..	306	155	461
Intemperance	8	1	9
Homicide	4	2	6
Suicide	69	8	77
Execution	3	..	3
Not classed	21	8	29
	723	232	955

Of the accidental deaths, drowning is still the most fatal form. The verdicts show that 121 bodies were found drowned, giving a percentage of 32·70 on the accidental deaths from all causes.

Fire Inquests.

The inquests on fires held during 1898 numbered 43. In eleven cases the verdict was incendiarism; in two, accident; in twenty-nine no evidence was forthcoming; and in one case insufficient evidence.

SECTION X.—GOVERNMENT VALUATION OF LAND AND ITS IMPROVEMENTS.

RESULTS OF THE GENERAL VALUATION MADE FOR MARCH, 1898.

IN the year 1896 an Act intituled the Government Valuation of Land Act was passed, providing for the appointment of a Valuer-General, and for the periodical valuation of all land in the colony. The Valuer-General is the Commissioner of Taxes for the time being. The valuations on the general roll are used for the assessment of land-tax, stamp duties, and duties on deceased persons' estates; for local rates, except in places where these are levied on the annual value; also, for the purposes of advances and investments on mortgage of land by the Post Office, Government Insurance Department, Public Trust Office, Government Advances to Settlers Office, and the Commissioners of the Public Debts Sinking Funds. The valuation is also used for the guidance of the Government in transactions under "The Land for Settlements Act, 1894," and "The Public Works Act, 1894."

The term "land" means and includes all lands, tenements, buildings, and hereditaments, whether corporeal or incorporeal, and also includes all chattel interests in land.

A certified copy of any entry in the general valuation-roll is supplied by the department on payment of the prescribed fee.

The general valuation-roll continues in force until a fresh roll is made, but whilst in force it may be altered and amended from time to time. The rolls for rating purposes are supplied to local bodies by the Valuer-General on the request of the local authority. The aim is to insure a standard valuation for taxation, local rating, and loan purposes.

Owners and occupiers dissatisfied with their valuations have the right of objection, the procedure being that laid down by "The Rating Act, 1894," and the regulations under "The Government Valuation of Land Act, 1896."

The cost of making the valuation is divided proportionally between the departments mostly using it and the local authorities, while separate fees are provided for by regulation for supplying individual valuations to persons requiring them.

The general valuation-roll shows the capital value of the property, of improvements, and the unimproved value of the land.

The surface-value only of gold mines is included, and the value of the Government railways has been excluded.

All land is included, whether occupied or unoccupied, whether owned by private individuals, by the Crown, by Natives, by local authorities, Education Boards, School Commissioners, Churches, corporations, companies, or societies of all kinds, and whether subject to or exempt from taxation or rates.

The work of valuing all the lands in the colony is very great, and the Valuer-General points out that some idea of its magnitude may be gathered from the fact that 231,965 separate valuations were needed, of which 119,258 were in the North Island, and 112,707 in the South.

The result of the valuation of land as in March, 1898, is given in the report of the Valuer-General, presented to both Houses of Parliament. Comparative figures are here given for 1888 and 1898 of the results of the assessments made in those years, and the increase, stating separately the unimproved value and the value of improvements; and it is noteworthy that, whereas between 1888 and 1898 the unimproved value of land has risen only by 11·79 per cent., the value of improvements is greater by no less than 52·05 per cent.

COMPARISON OF CAPITAL VALUES, 1888 AND 1898.

	1888.	1898.	Increase, 1888 to 1898.	
			Amount.	Rate per cent.
	£	£	£	
Unimproved value ..	75,497,379	84,401,244	8,903,865	11·79
Value of improvements	35,640,335	54,190,103	18,549,768	52·05
Total ..	111,137,714	138,591,347	27,453,633	24·70

In the figures for the North and South Islands the relative degree of increase is exhibited, and the rapid rate of progress in the North Island shows in strong contrast to that of the other Island. There has been great spread of settlement in the Wellington and Taranaki Districts.

CAPITAL VALUES

	1888.	1898.	Increase.
	£	£	£
North Island ..	49,607,873	71,680,952	22,073,079
South Island ..	61,529,841	66,910,395	5,380,554
Totals ..	111,137,714	138,591,347	27,453,633

The increase for the North Island of £22,073,079 represents an advance of 44·50 per cent. on the value in 1888, and that of £5,380,554, for the South Island, 8·74 per cent. The increase for the whole colony, as shown previously, was £27,453,633, or 24·70 per cent.

The statement on the next page gives the capital value of land and improvements in counties and boroughs as at the assessments of 1891 and 1898.

CAPITAL VALUE OF LAND IN COUNTIES AND BOROUGHS.

	1891.	1898.
	£	£
Counties	85,818,167	95,710,266
Boroughs	36,406,862	42,881,081
Totals	122,225,029	138,591,347

The increase in the capital value of land, with improvements, in counties for the seven years is £9,892,099, or 11·53 per cent., while that for boroughs is £6,474,219, or 17·78 per cent.; but the value of property in boroughs was added to between 1891 and 1898 by the constitution of ten new boroughs, and that of the counties correspondingly reduced, so that the actual rate of increase in the value of country lands is higher than indicated by the above figures, and in urban lands considerably less.

The results of the assessment of 1898 are given in detail in the tables which follow. For still fuller information, including particulars of road and town districts, besides ridings of counties, reference must be made to the statistical volume of 1898, which also gives comparisons in respect of counties and boroughs separately.

COUNTIES, 1898.

County.	Capital Value.	Unimproved Value.	Value of Improvements.
	£	£	£
Mongonui	213,214	148,051	65,163
Whangaroa	77,107	48,622	28,485
Bay of Islands	354,354	223,210	131,144
Hokianga	411,808	341,493	70,315
Whangarei	554,905	328,973	225,932
Hobson	374,443	241,653	132,790
Otamatea	303,113	186,903	116,210
Rodney	305,677	150,675	155,002
Waitemata	644,552	363,628	280,924
Eden	2,249,575	1,153,134	1,096,441
Manukau	1,513,178	800,861	712,317
Islands (Great and Little Barrier, &c., Waiheke) ..	149,011	79,634	69,377
Waikato	624,102	284,829	339,273
Raglan	437,962	300,417	137,545
Waipa	493,786	256,782	237,004
Kawhia	383,131	334,678	48,453
Coromandel	380,232	256,725	123,507
Thames	364,135	241,087	123,048
Ohinemuri	512,330	298,665	213,665
Tauranga	335,864	231,206	104,658
Piako	713,963	371,973	341,990
Rotorua	468,015	387,996	80,019
Whakatane	733,027	603,103	129,924
East Taupo	252,681	241,891	10,790
West Taupo	237,482	214,323	23,159
Islands (Mayor and Motiti) ..	5,780	3,696	2,084
Waiapu	732,232	402,194	330,038
Cook	2,569,400	1,560,073	1,009,327
Wairoa	1,040,618	759,735	280,883
Hawke's Bay	3,541,602	2,397,060	1,144,542
Waipawa	2,594,187	1,470,634	1,123,553

COUNTIES—*continued.*

County.	Capital Value.	Unimproved Value.	Value of Improvements.
	£	£	£
Patangata	1,837,598	1,131,077	706,521
Clifton	624,295	507,856	116,439
Taranaki	1,534,634	893,622	641,012
Stratford	992,931	574,883	418,048
Hawera	1,888,624	940,906	947,718
Patea	1,081,957	700,322	381,635
Waitotara	914,206	620,967	293,239
Wanganui	1,704,226	1,237,185	467,041
Rangitikei	1,960,707	1,146,725	813,982
Kiwitea	756,059	396,791	359,268
Pohangina	397,194	238,465	158,729
Manawatu	950,957	593,758	357,199
Oroua	1,908,338	1,080,844	827,494
Horowhenua	1,147,850	678,049	469,801
Islands (Kapiti and Mana) ..	10,484	9,378	1,106
Pahiatua	902,481	481,734	420,747
Wairarapa North	2,631,730	1,416,606	1,215,124
Wairarapa South	2,348,804	1,401,296	947,508
Hutt	1,272,436	612,129	660,307
Collingwood	360,119	192,224	167,895
Waimea	1,338,280	806,879	531,401
Sounds	276,735	169,387	107,348
Marlborough	1,814,285	1,304,020	510,265
Buller	673,391	474,842	198,549
Inangahua	946,174	595,295	350,879
Grey	817,957	579,498	238,459
Westland	792,307	668,688	123,619
Kaikoura	368,045	277,672	90,373
Cheviot	573,324	486,795	86,529
Amuri	688,106	508,777	179,329
Ashley	3,853,094	3,050,303	802,791
Selwyn	7,312,308	5,194,125	2,118,183
Akaroa	1,190,101	881,158	308,943
Ashburton	4,006,292	3,061,970	944,322
Geraldine	1,839,474	1,397,601	441,873
Levels	1,493,135	1,098,928	394,207
Mackenzie	799,755	646,091	153,664
Waimate	2,403,822	1,906,579	497,243
Waitaki	2,540,380	2,006,026	534,354
Maniototo	553,766	374,584	179,182
Waihemo	409,062	274,698	134,364
Waikouaiti	587,814	320,442	267,372
Peninsula	417,251	243,754	173,497
Taieri	1,282,724	925,259	357,465
Tuapeka	833,968	539,371	294,597
Bruce	944,163	639,669	304,494
Clutha	1,175,618	814,022	361,596
Vincent	437,987	282,458	155,529
Lake	318,564	234,328	84,236
Fiord	143,584	137,209	6,375
Wallace	1,656,864	1,177,764	479,100
Southland	4,251,275	2,967,350	1,283,925
Stewart Island	159,690	134,378	25,312
Islands (Antipodes, Auckland, and Campbell)	13,875	13,875	..
Totals	95,710,266	63,732,516	31,977,750

BOROUGHS, 1898.

Borough.	Capital Value.	Unimproved Value.	Value of Improvements.
	£	£	£
Whangarei	90,000	32,357	57,643
Birkenhead	94,185	46,611	47,574
Devonport	471,867	199,325	272,542
Auckland	5,676,695	2,980,860	2,695,835
Parnell	399,480	185,278	214,202
Newmarket	175,657	82,374	93,283
Newton	262,946	144,553	118,393
Onehunga	267,123	130,359	136,764
Hamilton	118,267	50,410	67,857
Cambridge	79,519	26,268	53,251
Thames	294,695	114,703	179,992
Tauranga	87,301	29,379	57,922
Te Aroha	56,925	25,520	31,405
Gisborne	305,763	132,139	173,624
Napier	1,263,227	585,854	677,373
Hastings	497,862	279,997	217,865
Dannevirke	147,339	78,605	68,734
Woodville	98,474	44,081	54,393
New Plymouth	572,216	325,391	246,825
Hawera	220,115	98,863	121,252
Patea	63,626	22,667	40,959
Wanganui	813,205	461,743	351,462
Marton	112,075	42,406	69,669
Feilding	233,367	104,788	128,579
Palmerston North	631,796	309,019	322,777
Foxton	100,051	42,412	57,639
Onslow	202,971	107,286	95,685
Karori	161,936	110,053	51,883
Wellington	8,052,512	4,814,677	3,237,835
Melrose	314,002	205,224	108,778
Pahiatua	112,239	50,462	61,777
Masterton	472,291	207,845	264,446
Carterton	111,106	46,735	64,371
Greytown	130,036	48,456	81,580
Lower Hutt	269,821	166,969	102,852
Petone	283,285	140,593	142,692
Richmond	85,380	45,153	40,227
Nelson	833,562	342,029	491,533
Picton	74,833	27,271	47,562
Blenheim	334,990	127,635	207,355
Westport	189,916	76,756	113,160
Greymouth	335,889	87,144	248,745
Brunner	69,661	11,529	58,132
Kumara	36,721	5,461	31,260
Hokitika	150,091	55,580	94,511
Ross	29,442	8,871	20,571
Rangiora	175,292	73,011	102,281
Kaiapoi	154,281	48,200	106,081
St. Albans	611,154	271,805	339,349
Christchurch	3,364,921	1,605,137	1,759,784
Sydenham	770,059	284,718	485,341
Linwood	445,210	169,582	275,628
Woolston	193,425	94,798	98,627
New Brighton	94,719	45,997	48,722
Sumner	114,143	63,117	51,026
Lyttelton	841,719	238,274	603,445
Akaroa	50,968	17,705	33,263

BOROUGHS—*continued.*

Borough.	Capital Value.	Unimproved Value.	Value of Improvements
	£	£	£
Ashburton	244,027	94,217	149,810
Timaru	539,659	188,212	351,447
Waimate	93,699	27,297	66,402
Oamaru	437,089	156,348	280,741
Hampden	15,721	6,029	9,692
Naseby	30,075	3,975	26,100
Palmerston	43,747	10,729	33,018
Hawksbury	47,354	20,436	26,918
Port Chalmers	220,291	59,828	160,463
West Harbour	133,269	61,839	71,430
North-East Valley	256,458	104,230	152,228
Maori Hill	173,027	73,970	99,057
Roslyn	481,554	218,093	263,461
Mornington	301,107	109,150	191,957
Dunedin	4,339,744	2,071,548	2,268,196
Caversham	466,845	186,911	279,934
South Dunedin	296,619	91,964	204,655
St. Kilda	130,573	72,186	58,387
Green Island	39,154	12,229	26,925
Mosgiel	119,466	46,875	72,591
Roxburgh	26,836	3,281	23,555
Lawrence	89,245	22,125	67,120
Tapanui	16,463	2,514	13,949
Milton	109,273	28,691	80,582
Balclutha	70,287	24,257	46,030
Kaitangata	59,958	27,933	32,025
Arrowtown	26,547	4,722	21,825
Queenstown	66,261	12,227	54,034
Cromwell	34,818	10,782	24,036
Alexandra	31,089	9,287	21,802
Gore	172,932	64,239	108,693
Mataura	83,481	28,624	54,857
Winton	29,331	10,739	18,592
Gladstone	34,057	15,991	18,066
Avenal	23,488	8,401	15,087
North Invercargill	40,990	17,221	23,769
East Invercargill	52,487	17,380	35,107
Invercargill	982,482	430,704	551,778
South Invercargill	97,249	37,919	59,330
Riverton	58,566	15,161	43,405
Campbelltown	165,412	86,429	78,983
Total of boroughs ..	42,881,081	20,668,728	22,212,353

SECTION XI.—LOCAL GOVERNING BODIES.

COUNTIES, BOROUGHS, ETC.

FOR purposes of local government New Zealand is divided into counties and boroughs. Although the boroughs, of which there were 99 in March, 1899, lie geographically within the counties, yet by the law they are not considered as part of them. On the 31st March, 1899, the counties numbered 83. The number is increased from time to time as need is found for further division, and in November, 1898, two new counties, Akitio and Eketahuna, were constituted, being cut out of Wairarapa North County. By an Act passed in 1899, it is provided that in respect of these two new counties, Akitio and Eketahuna, and another named Levels, every road district existing in their territory at the time of their constitution shall be deemed to have been abolished and merged in such counties. In the year 1878 there were only 63 counties. Interior to the counties are the road and town districts, but much of the country is outlying, many road districts having been merged, especially on goldfields territory. There were, however, 238 road districts (4 without Boards) in existence in March, 1899, and 38 town districts. One of these latter is the special Town District of Rotorua, constituted under "The Thermal-Springs Districts Act, 1881." Besides the above there were 27 river protective districts (excluding Inch Clutha, in Bruce County, which is also a road district), 1 drainage district (Christchurch), 2 water-supply districts, and 12 land drainage districts under the Land Drainage Act of 1893. The Harbour Boards numbered 26.

These bodies levied rates in the financial year 1898–99 to the amount of £685,769, of which £467,106 consisted of general rates, and £218,663 special and separate rates. The sum of £76,008 was raised by licenses, and £20,754 by other taxes, making £782,531 altogether, which sum is equivalent to £1 1s. 2d. per head of the mean European population. In the year 1897–98 the local taxation was £1 0s. 5d. per head, or 9d. less than in 1898–99.

It will be seen from the table on the next page that since 1881 revenue derived from rates has considerably more than doubled, having increased from £249,087 in 1880–81 to £685,769 in 1898–99. Revenue from Government and other sources has, on the other hand, decreased in the same period—nineteen years. Receipts which cannot be classed as "revenue" were £889,705 in 1880–81, against only £385,368 in 1898–99; but these figures vary from year to year according to circumstances, such as large operations by way of construction of works, for which money has to be specially raised.

The receipts (distinguishing revenue from other sources of income) and expenditure of the various local bodies, with the amount of rates collected, and the amount of indebtedness on account of loans for each of the past nineteen years, are shown in the following table:—

LOCAL GOVERNING BODIES.—RATES, RECEIPTS, EXPENDITURE, AND LOANS, 1881 TO 1899.[*]

Year ended 31st March.	Receipts of Local Bodies.						Expenditure of Local Bodies.[†]	Outstanding Loans of Local Bodies (excluding Government Loans, for which see the following Columns).	Government Loans to Local Bodies.	
	Revenue from.				Receipts not Revenue.	Total Receipts.			Outstanding Debentures under "The Roads and Bridges Construction Act, 1882."	Net Indebtedness in February of each Year under "The Government Loans to Local Bodies Act, 1886" (including Debentures under the Roads and Bridges Construction Act, converted).
	Rates.	Licenses, Tolls, Rents, and other Sources.	Government.	Total Revenue.						
	£	£	£	£	£	£	£	£	£	£
1881 ..	249,087	461,602	352,540	1,063,229	889,705	1,952,934	1,871,752	3,039,807	..	..
1882 ..	297,328	476,473	218,179	991,980	419,608	1,411,588	1,637,337	3,277,584	..	..
1883 ..	327,129	466,885	133,565	927,579	311,466	1,239,045	1,397,863	3,540,046	..	..
1884 ..	398,659	502,969	241,558	1,143,186	331,994	1,475,180	1,499,117	3,962,330	77,439	..
1885 ..	401,393	477,813	364,082	1,243,288	430,561	1,673,849	1,653,706	4,313,223	123,086[‡]	..
1886 ..	410,639	504,807	377,811	1,293,257	514,728	1,807,985	1,644,706	4,943,270	134,534	..
1887 ..	434,237	447,631	342,432	1,224,300	992,633	2,216,933	1,885,001	5,620,747	113,072	..
1888 ..	433,832	460,210	334,857	1,228,899	511,594	1,740,493	1,819,787	5,812,803	18,635	191,687
1889 ..	445,929	535,140	141,288	1,122,357	316,139	1,438,496	1,560,605	5,892,050	10,495	273,289
1890 ..	460,303	568,405	139,320	1,168,028	206,688	1,374,716	1,476,540	5,978,059	9,676	319,603
1891 ..	463,581	518,757	144,008	1,126,346	236,902	1,363,248	1,381,320	6,042,693	4,317	367,715
1892 ..	488,824	584,274	109,022	1,182,120	214,124	1,396,244	1,400,467	6,081,934	4,245	449,532
1893 ..	508,157	573,161	136,515	1,217,833	340,538	1,558,371	1,482,548	6,203,869	3,465	525,173
1894 ..	551,412	547,560	134,271	1,233,243	623,038	1,856,281	1,589,124	6,614,824	2,685	547,679
1895 ..	581,868	545,629	138,228	1,265,725	328,798	1,594,523	1,584,518	6,685,510	2,015	621,903
1896 ..	592,903	581,966	156,180	1,331,049	269,145	1,600,194	1,627,079	6,737,578	1,442	667,451
1897 ..	598,526	586,599	178,448	1,363,573	246,919	1,610,492	1,636,716	6,793,398	1,077	709,282
1898 ..	644,552	608,436	182,166	1,435,154	304,645	1,739,799	1,733,016	6,834,361	712	742,530
1899 ..	685,769	642,289	178,438	1,506,496	385,368	1,891,864	1,778,574	6,963,254	347	789,618

[*] The figures for the Christchurch Drainage Board and Harbour Boards included are for the calendar years ended three months previous to the financial years.
[†] Not including balances, deposits, or amounts paid to sinking funds and for redemption of debentures.
[‡] On the 30th June.

The indebtedness of local governing bodies on account of outstanding loans has increased by nearly 129 per cent., from £3,039,807 to £6,963,254, exclusive of moneys borrowed from Government under "The Roads and Bridges Construction Act, 1882," and "The Government Loans to Local Bodies Act, 1886," which represented a further indebtedness of £789,965 at the end of March, 1899.

TAXATION BY LOCAL BODIES.

TABLE showing the Revenue of Local Governing Bodies derived from Rates, Licenses, and other Taxes during the Year 1898–99.

Local Bodies.	Rates.						Licenses.			Other Taxes.			Total.		
	General.			Special and Separate.											
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Counties * ...	176,458	1	8	32,973	13	9	18,999	7	7	11,615	0	4	240,046	3	4
Boroughs * ...	136,910	7	11	167,049	2	11	50,909	9	2	7,192	0	4	362,061	0	4
Town Boards * ...	3,744	0	10	253	10	8	4,105	7	4	240	19	0	8,343	17	10
Road Boards * ...	87,349	0	4	13,482	12	0	1,994	3	0	1,705	12	0	104,531	7	4
River Boards * ...	6,322	4	4	1,850	4	2	...			...			8,172	8	6
Land-drainage Boards * ...	1,734	18	7	1,233	4	9	...			...			2,968	3	4
Harbour Boards †	36,696	9	10	...			...			...			36,696	9	10‡
Christchurch Drainage Board †	17,890	13	2	...			...			...			17,890	13	2
Waimakariri-Ashley Water-supply Board*	...			1,821	4	0	...			...			1,821	4	0
Totals ...	467,105	16	8	218,663	12	3	76,008	7	1	20,753	11	8	782,531	7	8§

* For year ended 31st March, 1899. † For year ended 31st December, 1898.

‡ Wharfage dues, charges, fees, tolls, rents, &c., amounting to £317,186 8s. 4d., have not been classed as taxation. § Equal to £1 1s. 2d. per head of the mean European population of the colony for the financial year 1898–99.

RECEIPTS AND EXPENDITURE, 1898–99.

A summary of all the transactions for the year 1898–99 is given on pages 265, 266. The total revenue of the local bodies for the financial year was £1,506,496, and they further received a sum of £385,368 which could not properly be termed "revenue," making altogether a grand total of receipts amounting to £1,891,864. The rates formed 45 per cent. of the revenue proper. Licenses, rents, and other sources yielded 43 per cent., and 12 per cent. was granted by the General Government.

While the revenue proper of the counties amounted to £369,997, of which these bodies raised £209,431 by way of rates, the Road Boards' revenue was only £160,925, out of which £100,831 represented the result of their rating. The boroughs had the far larger revenue of £529,142, including £303,959 of rates, and their receipts under the heading of licenses, rents, and other sources amounted to the considerable sum of £209,479. In the matter of receipts from Government, of which a table is printed on the next page, the counties received the bulk of the money.

The financial operations of the County Councils for the year under review were much larger than those of the Road Boards, and the amount raised by rates more than double.

The details of amounts received, representing Government support to the various bodies, are stated in the following table:—

LOCAL GOVERNING BODIES.—RECEIPTS FROM GOVERNMENT, 1898-99.

—	Counties.	Boroughs.	Town Boards.	Road Boards.	River Boards (excluding Inch-Clutha, also Road Board).	Land Drainage Boards.	Harbour Boards.	Waimakariri Water-supply Board.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Rates on Crown and Native lands ...	108 3 10	56 6 6	...	43 1 11	...	...	...	...	207 12 3
One-third receipts from land sold on deferred payment and from perpetual lease	17,526 9 11	...	14 9 2	10,086 13 4	...	...	...	...	27,627 12 5
One-fourth of rents from small grazing-runs	2,624 4 3	...	...	237 10 4	...	...	...	...	2,861 14 7
Goldfields revenue and gold duty ...	41,552 6 4	1,107 15 7	2 16 8	110 14 0	...	...	339 2 2	...	43,112 14 9
Subsidies under the Local Bodies' Finance and Powers Act	45,747 14 10	12,569 2 1	760 14 5	20,518 12 11	...	...	...	...	79,596 4 3
Fees and fines under the Financial Arrangements Act	483 13 0	426 2 5	9 10 8	14 1 5	...	...	...	...	933 7 6
Other receipts	8,625 16 3	1,543 12 0	540 0 8	7,296 17 3	...	90 0 0	6,002 13 2	...	24,098 19 4
Total Revenue Account	116,668 8 5	15,702 18 7	1,327 11 7	38,307 11 2	...	90 0 0	6,341 15 4	...	178,436 5 1
Loans under Government Loans to Local Bodies Act	31,298 19 11	8,295 11 10	300 0 0	19,886 5 4	1,000 0 0	2,859 0 0	...	...	63,189 17 1
Grants for special works, &c.	58,051 9 0	3,407 10 11	...	...	...	...	...	563 7 6	62,022 7 5
Total receipts from Government	206,018 17 4	27,406 1 4	1,627 11 7	57,693 16 6	1,000 0 0	2,949 0 0	6,341 15 4	563 7 6	303,600 9 7

LOCAL GOVERNING BODIES.—RECEIPTS, EXPENDITURE, AND LOANS, 1898–99.

—	Counties.	Boroughs.	Town Boards	Road Boards.	River Boards (excluding Inch-Clutha, also Road Board).	Land Drainage Boards.	Waimakariri Water-supply Board.	Totals.
	Financial Year ended 31st March, 1899.							
Receipts:—								
Revenue from—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Rates	209,431 15 5	303,959 10 10	8,997 11 6	100,831 12 4	8,172 8 6	2,968 3 4	1,821 4 0	631,182 5 11
Licenses, rents, and other sources	43,897 8 4	209,479 17 8	6,862 7 4	12,853 14 0	3,932 16 10	247 7 11	350 2 1	277,623 14 2
Government*	116,668 8 5	15,702 18 7	1,327 11 7	36,307 11 2	...	90 0 0	...	172,096 9 9
County	...	...	206 3 7	8,932 4 1	...	...	...	9,140 7 8
Total revenue	369,997 12 2	529,142 7 1	12,395 14 0	160,925 1 7	12,105 5 4	3,305 11 3	2,171 6 1	1,090,042 17 6
Receipts not revenue ...	119,643 7 11	128,059 3 10	861 1 5	22,971 8 5	5,618 12 6	2,953 17 10	2,577 17 6	282,685 9 5
Total receipts	489,641 0 1	657,201 10 11	13,256 15 5	183,896 10 0	17,723 17 10	6,259 9 1	4,749 3 7	1,372,728 6 11
Expenditure:—								
Public works	341,486 8 7	219,797 2 9	8,220 16 9	113,175 14 6	6,886 4 5	4,714 15 3	4,362 7 11	698,643 10 2
Charitable aid and hospitals	37,402 2 9	27,434 3 2	348 9 0	9,558 17 1	...	...	...	74,743 12 0
Management	46,500 9 6	54,154 11 5	2,122 2 6	16,092 13 1	1,236 7 10	264 16 11	319 12 6	120,690 13 9
Other expenditure	67,852 5 9	286,683 19 9	2,208 19 9	27,159 18 2	6,702 5 7	1,100 2 5	1,173 3 9	392,880 15 2
Total expenditure ...	493,241 6 7	558,069 17 1	12,900 8 0	165,987 2 10	14,824 17 10	6,079 14 7	5,855 4 2	1,286,958 11 1
Liabilities (including loans) ...	717,218 4 9	3,196,780 17 5	6,008 11 9	471,383 15 10	61,684 1 2	25,194 10 0	22,160 10 0	4,500,430 10 11
Loans†	10,500 0 0	2,881,567 0 0	580 0 0	2,900 0 0	42,320 0 0	...	21,200 0 0	2,959,067 0 0‡

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* For amounts under various heads see preceding table; also for specification of loans under Government Loans to Local Bodies Act, and special grants, which are here included with "Receipts not revenue." † For rates of interest see page 268. ‡ Not including loans, amounting to £789,965, repayable by instalments under "The Roads and Bridges Construction Act, 1882," and "The Government Loans to Local Bodies Act, 1886."

NOTE.—The return of receipts and expenditure in this summary represents the *net* receipts and expenditure of the year, exclusive of credit and debit balances, bank overdrafts, deposits, amounts paid to sinking funds, and for redemption of debentures.

LOCAL GOVERNING BODIES.—RECEIPTS, EXPENDITURE, AND LOANS—*continued.*

—	Financial Year ended 31st December, 1898.		Totals—all Local Bodies.
	Harbour Boards.	Drainage Board.	
Receipts:—			
Revenue from—	£ s. d.	£ s. d.	£ s. d.
Rates	36,696 9 10	17,890 13 2	685,769 8 11
Licenses, rents, and other sources ...	354,524 5 0	1,000 14 2	633,148 13 4
Government*	6,341 15 4	...	178,438 5 1
County	...	...	9,140 7 8
Total revenue	397,562 10 2	18,891 7 4	1,506,496 15 0
Receipts not revenue	102,682 5 1	...	385,367 14 6
Total receipts	500,244 15 3	18,891 7 4	1,891,864 9 6
Expenditure:—			
Public works	159,111 14 10	3,459 16 8	861,215 1 8
Charitable aid and hospitals... ...	...	...	74,743 12 0
Management	13,189 11 8	941 11 1	134,821 16 6
Other expenditure	299,275 2 4	15,637 18 6	707,793 16 0
Total expenditure	471,576 8 10	20,039 6 3	1,778,574 6 2
Liabilities (including loans)	3,945,192 9 8	206,147 16 3	8,651,770 16 10
Loans†	3,804,187 0 0	200,000 0 0	6,963,254 0 0

* † See notes to table on previous page.

The expenditure of the local bodies amounted to £1,778,574. In the counties the cost of management, including salaries, travelling-expenses, rent, printing and advertising, collection of rates or tolls, legal expenses, and sundries, was £46,500. The Borough Councils expended in the same way £54,154, and the Road Boards £16,092. The percentages borne by the cost of management to the total receipts and total expenditure were:—

Cost of Management per Cent. of	Total Receipts.	Total Expenditure.
Counties	9·5	9·4
Boroughs	8·2	9·7
Road Boards	8·8	9·7

LOANS OF LOCAL BODIES.

The outstanding loans of local governing bodies form the subject-matter dealt with in the two next tables. From them it will be seen that the total amount owing was, on the 31st March, 1899, £6,963,254. But against this accrued sinking funds to the value of £649,131 were held, leaving a net debt of £6,314,123, exclusive of moneys borrowed from the General Government and repaid by annual instalments.

The total annual charge (excluding exchange and commission) stood at £395,107, of which £363,915 were for interest, and the remainder, £31,192, contributions to sinking fund accounts.

Of the total indebtedness in 1898–99 the debt of the Harbour Boards, £3,804,187, formed the largest item, while the Borough Councils owed £2,881,567.

In the second table (page 268) will be found a summary of the amounts raised by loan, classified according to the rates of interest paid, distinguishing loans raised in the colony from those raised abroad. It will be noticed that the amount raised abroad (£5,485,100) is nearly four times as great as that raised in New Zealand (£1,478,154). The lowest rate of interest paid was 3 per cent., but the large sum of £2,736,978 was raised at 5 per cent., and £2,647,004 at 6 per cent., while £170,100 bore interest as high as 7 per cent.

LOANS OF LOCAL BODIES, MARCH, 1899.—NET INDEBTEDNESS AND ANNUAL CHARGE.

—	Amount of Debentures and Stock in Circulation.	Amount of Accrued Sinking Fund.	Net Indebtedness.	Annual Charge (excluding Exchange and Commission).		
				Interest.	Sinking Fund.	Total.
	£	£	£	£	£	£
Counties	10,500	1,007	9,493	624	150	774
Boroughs	2,881,567	334,684	2,546,883	156,539	11,265	167,804
Town Boards	580	48	532	35	15	50
Road Boards	2,900	..	2,900	150	..	150
River Boards	42,820	8,063	34,257	2,219	500	2,719
Water-supply Board	21,200	268	20,932	1,008	200	1,208
Harbour Boards	3,804,187	276,960	3,527,227	191,340	17,062	208,402
Drainage Board	200,000	28,101	171,899	12,000	2,000	14,000
Totals	6,963,254	649,131	6,314,123	363,915	31,192	395,107
Inscribed debt of local bodies under "The Government Loans to Local Bodies Act, 1886" (including inscribed stock exchanged for debentures under "The Roads and Bridges Construction Act, 1882")	789,618	..	789,618*	..	..	51,590
Outstanding debentures under "The Roads and Bridges Construction Act, 1882"	347	..	347	..	..	365†
Totals	7,753,219	649,131	7,104,088	..	..	447,062

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* Repayable by annual instalments of £51,590, representing 5 per cent. per annum on £1,031,799, the amount inscribed to 1st February, 1899. Payments for 26 years of 5 per cent. per annum on the amount inscribed (£1,031,799, including £89,878 debentures under "The Roads and Bridges Construction Act, 1882," exchanged) would be £1,341,339. The actual repayments to date are £314,836, leaving £1,026,503 to be paid by way of interest and sinking fund on a present indebtedness of £789,618.

† Amount for 1898-99.

LOANS OF LOCAL BODIES, RAISED WITHIN AND WITHOUT THE COLONY.

TABLE showing the Amount of Indebtedness of Counties, Boroughs, Town, Road, River, and Water-supply Boards, as on the 31st March, 1899, and of Harbour and Drainage Boards as on the 31st December, 1898, classified according to the Rates of Interest paid, distinguishing Loans raised in the Colony from those raised elsewhere. (See note ‡)

Local Bodies.	No Interest.	3 %	4 %	4½ %	5 %	5¼ %	5½ %	5¾ %	6 %	6½ %	7 %	Total.
	£	£	£	£	£	£	£	£	£	£	£	£
Loans raised in the Colony.												
Counties	..	..	..	..	4,100	..	..	..	2,900	..	3,500	10,500
Boroughs	25,000	..	78,590	59,525*	102,628	18,000	64,900	5,000†	227,224	2,600	99,900	683,367
Town Boards	..	..	..	..	..	..	..	..	580	..	..	580
Road Boards	..	..	..	..	2,400	..	..	..	500	..	..	2,900
River Boards	..	..	..	5,000	1,850	..	3,320	..	6,150	..	..	16,320
Water-supply Board ..	..	..	..	11,200	10,000	..	..	..	..	..	..	21,200
Harbour Boards	..	14,538	581,550	17,000	91,000	..	32,000	..	3,450	3,549	200	743,287
Total raised in colony ..	25,000	14,538	660,140	92,725	211,978	18,000	100,220	5,000†	240,804	6,149	103,600	1,478,154
Loans raised outside the Colony.												
Boroughs	..	..	33,000	254,400	800,200	..	..	..	1,044,100	..	66,500	2,198,200
River Boards	..	..	..	..	21,000	..	..	..	5,000	..	..	26,000
Harbour Boards	..	..	100,000	100,000	1,703,800	..	..	..	1,157,100	..	..	3,060,900
Drainage Board	..	..	..	..	..	..	..	..	200,000	..	..	200,000
Total raised outside colony	..	..	133,000	354,400	2,525,000	..	..	..	2,406,200	..	66,500	5,485,100
Total Loans raised.												
Counties	..	..	..	..	4,100	..	..	..	2,900	..	3,500	10,500
Boroughs	25,000	..	111,590	313,925*	902,828	18,000	64,900	5,000†	1,271,324	2,600	166,400	2,881,567
Town Boards	..	..	..	..	..	..	..	..	580	..	..	580
Road Boards	..	..	..	..	2,400	..	..	..	500	..	..	2,900
River Boards	..	..	..	5,000	22,850	..	3,320	..	11,150	..	..	42,320
Water-supply Board ..	..	..	..	11,200	10,000	..	..	..	..	..	..	21,200
Harbour Boards	..	14,538	681,550	117,000	1,794,800	..	32,000	..	1,160,550	3,549	200	3,804,187
Drainage Board	..	..	..	..	..	..	..	..	200,000	..	..	200,000
Total loans raised‡ ..	25,000	14,538	793,140	447,125*	2,736,978	18,000	100,220	5,000†	2,647,004	6,149	170,100	6,963,254

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* Including £500 at 4¾ per cent. † Including £2,000 at 5·7 per cent. ‡ Not including loans, amounting to £789,965, repayable by annual instalments under "The Roads and Bridges Construction Act, 1882," and "The Government Loans to Local Bodies Act, 1886."

Referring once more to the comparative table on page 262, and to the great advance in local bodies' debts, it will be found that between 1885–86 and 1895–96 the gross indebtedness increased from £4,943,270 to £6,737,578, an addition of £1,794,308 for the period, or 36·30 per cent. Between the same (census) years population advanced from 578,482 to 703,360, the increase having been 124,878 persons, or 21·59 per cent. The wealth of the colony was estimated at about £170,000,000 in 1886 and £215,000,000 in 1896, an accretion of £45,000,000 during the ten years. Thus, while the population of New Zealand increased by 21·59 per cent. in ten years, and wealth by 26·47 per cent., the debt of the local governing bodies advanced at the higher ratio of 36·30 per cent. during the same period.

The aggregate interest-charge for the year under review was £363,915, and £296,545 of this was payable on loans raised outside the colony. The average rate of interest payable to bondholders was rather more than £5 4s. 9d. per cent., as shown hereunder:—

Loans raised by Local Bodies.	Debentures and Stock in Circulation.	Interest-charge.	Average Rate of Interest.
	£	£	%
In the colony	25,000	Nil.	..
	1,453,154	67,370	4·636
Outside the colony ..	5,485,100	296,545	5·406
Total (excluding loans from Government) ..	6,963,254*	363,915	5·245*

While the average rate of interest on the above-mentioned debt is found to be nearly 5¼ per cent., nearly two millions and three quarters were raised at 5 per cent., and more than two and a half millions at 6 per cent.

“The Government Loans to Local Bodies Act Amendment Act, 1899.”

In view of the general lowering of rates of interest, this new Act modifies the terms of the principal Act by providing, in respect of the debentures of any future loan, instead of interest payable at 5 per cent. for a term of twenty-six years, one or other of the following alternatives :—

Four and a half per cent. per annum for a term of twenty-six years ;
Four per cent. per annum for thirty-two years ; or
Three and a half per cent. per annum for forty-one years.

The loans in existence at the passing of the Act may be re-adjusted so as to come under one or other of the alternatives under the new amendment as quoted above.

The rate of 1½ per cent. per annum, which under the Act of 1892 forms the basis for calculating the amount payable to the sinking

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* The £25,000 on which no interest is paid has not been taken into account in computing the average rate of interest.

BOROUGHS, 1898–99.

Name of Borough.	Estimated Area (including Town Belt) in Acres.	Population.	Number of			Amount of Rate levied in the Pound.					Estimated Annual (or renting) Value of Rateable Property in March, 1899.	Capital Value of Rateable Property, March, 1899.	Unimproved Value of Rateable Property, March, 1899.
			Dwellings.	Ratepayers	Rateable Properties.	General.	Separate.	Special.	Water.	Library.			
						s. d.	s. d.	s. d.	s. d.	. d.	£	£	£
Whangarei ..	1,825	1,500	350	280	380	0 0¾	..	..	..	..	..	85,000	..
Birkenhead* ..	2,803	750	..	185	210	1 3	0 2¼	0 2¼	..	..	6,000	..	..
Devonport ..	640	3,400	660	613	1,075	1 0	..	0 9	6d., or 2½ per cent.	..	24,731	..	..
Auckland ..	1,772	38,100	7,650	5,300	8,200	1 0	0 2	1 0	2½ per cent.	0 0½	319,200	..	..
Grey Lynn ..	900	2,700	608	586	784	1 0	0 2½	0 4	4 to 6 per cent.	..	18,592	..	..
Newmarket ..	150	2,100	400	285	353	1 3	..	0 7	4 to 6 per cent.	..	11,686	..	..
Parnell ..	480	4,350	882	574	834	1 3	..	0 9	4 per cent.	..	28,406	..	..
Onehunga ..	1,200	2,913	640	577	955	0 9	..	..	4 per cent.	..	16,024	..	..
Te Aroha ..	200	600	139	201	201	0 9	..	..	..	..	5,364	..	..
Thames ..	2,560	5,000	..	871	1,563	1 2	0 4	..	2½ per cent.	0 1	30,759	..	..
Hamilton ..	1,600	1,250	410	380	640	1 0	..	..	..	..	7,780	..	..
Cambridge ..	1,083	880	250	215	688	1 0	..	..	..	..	4,746	..	..
Tauranga ..	1,000	1,050	375	415	620	1 0	..	1 3	..	..	4,416	..	..
Gisborne ..	1,260	2,500	490	430	750	1 3	..	0 6	..	..	26,484	..	..
New Plymouth	850	4,200	760	797	1,122	1 3	..	0 10	2½ to 5 per cent.	..	32,100	..	..
Stratford ..	1,920	1,700	340	421	546	0 0$\frac{15}{16}$	..	0 0$\frac{19}{32}$	..	..	..	119,015	..
Hawera ..	500	2,300	460	410	600	1 3	..	..	..	..	14,200	..	..
Patea ..	1,420	800	230	188	562	1 3	0 4⅝	..	0 1¾	..	4,730	..	..
Wanganui ..	1,000	6,400	1,382	958	1,531	0 10	..	1 3	..	..	49,000	..	..
Marton ..	1,423	1,200	230	255	400	1 1	..	1 0	..	0 1	9,956	..	..
Feilding ..	3,500	2,150	430	441	806	1 3	..	1 0	..	0 1	16,282	..	..

Palmerston N.	4,593	6,200	1,252	1,109	2,538	0 1⅝	..	0 1¾	(1)	..	..	..	301,041
Foxton† ..	..	1,140	..	..	..	..	..	..	..	..	..	..	..
Hastings ..	5,740	3,300	772	741	1,293	1 3	..	0 9	..	..	40,000	..	..
Napier ..	879	9,399	1,818	910	2,506	0 6	..	1 7	..	..	81,404	..	..
Dannevirke ..	1,222	1,700	375	386	1,206	1 3	..	8d. & 4d.	2½ to 3¾ per cent.	..	13,040	..	..
Woodville ..	1,240	1,150	337	462	462	0 3⅝	..	..	..	..	..	..	40,608
Pahiatua ..	750	1,200	285	380	448	0 2 1/32	0 0½	¼d., 1⅜d., & 1¼d.	..	..	..	..	50,736
Masterton ..	4,311	3,800	737	626	1,120	1 1	..	..	..	0 1	30,626	..	..
Carterton ..	1,880	1,300	270	240	304	0 0 15/16	..	..	..	..	..	105,015	..
Greytown ..	3,907	1,120	240	220	363	1 0	..	..	..	0 1	8,485	..	..
Lower Hutt ..	3,255	1,550	318	256	899	0 0¾	0 0 3/16	..	..	..	..	263,946	..
Petone ..	952	3,250	638	533	1,396	1 0	..	0 9	..	..	20,672	..	..
Onslow ..	2,870	1,450	280	330	870	0 0 15/16	0 0⅛	0 0⅜	..	..	..	201,440	..
Wellington ..	1,100	42,512	7,858	4,817	9,527	1 3	0 3¼	0 11¼	0 9⅜	0 0½	415,970	..	..
Karori ..	5,127	1,060	204	199	310	0 0 15/16	..	0 0⅜	..	..	..	152,230	..
Melrose ..	4,300	2,275	455	645	789	0 1 43/100	0 0⅛	..	..	..	..	..	202,750
Picton ..	560	870	160	266	980	0 0¾	0 0⅛	..	1d. and ½d.	..	..	61,832	..
Blenheim ..	1,571	3,200	726	590	1,450	1 1½	0 3¼	0 2½	..	..	23,782	..	..
Nelson ..	4,800	7,064	1,396	1,169	2,272	1 1	..	0 1	2 to 3½ per cent.	..	51,421	..	..
Richmond ..	2,300	610	126	132	141	0 0¾	..	..	4 per cent.	..	..	83,120	..
Westport ..	713	3,200	728	818	1,120	1 2	0 6	..	..	..	20,100	..	..
Greymouth ..	2,000	3,345	754	545	964	0 4	0 0½(2)	..	..	..	..	..	78,833
Brunner ..	5,700	1,200	280	222	292	1 3	..	1 4	..	..	4,965	..	..
Kumara ..	842	1,150	260	248	391	0 0¾	0 1½	..	..	..	..	24,871	..
Hokitika ..	1,280	2,100	630	570	665	0 0 15/16	0 1⅜	0 0¾	..	..	..	105,000	..
Ross ..	4,196	750	300	354	414	0 0¾	0 1¼	..	..	..	..	16,052	..
Rangiora ..	1,040	1,871	395	347	541	0 0¾	..	..	..	..	..	162,662	..
Kaiapoi ..	1,020	1,880	460	359	604	1 3	..	..	..	..	9,949	..	..
Christchurch	1,249	18,085	3,617	..	4,669	1 0	1 0	0 2½	..	..	206,826	..	..
Linwood ..	659	6,553	1,380	1,154	1,388	0 0 15/16	3/64d., 3/16d.	(3)	..	..	..	452,603	..
St. Albans ..	1,500	6,050	1,320	1,142	1,483	0 0 11/16	0 0 5/16	0 0 13/16	..	..	..	629,000	..
Sydenham ..	1,190	10,987	2,247	1,904	2,250	0 0⅞	¾d., 5/64d., 7/16d.	..	..	..	..	729,656	..
Woolston ..	1,276	2,100	463	480	590	0 0 15/16	0 0 5/32	..	..	..	..	192,707	..
Sumner ..	4,876	592	183	251	378	1 0	..	0 7	2½ per cent. (4)	..	6,780	..	..
New Brighton	1,500	900	214	560	709	1 0	0 2	0 9	..	..	6,400	..	..

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Amounts of Rates Levied in the Pound.					Estimated Annual rateable Value of Rateable Property in March, [illegible]	Capital Value of Rateable Property, March, [illegible]	Unimproved Value of Rateable Property, March, [illegible]
						General.	Separate.	Special.	Water.	Library.			
						s. d.	s. d.	s. d.	s. d.	s. d.	£	£	£
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	..	..	..	..	[illegible]	..	..
Akaroa ..	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0 [illegible]	..	..	..	..	..	45,680	..
Ashburton ..	680	2,160	500	512	..	1 0	..	..	..	..	19,950	..	..
Timaru ..	1,100	6,000	1,139	950	1,357	1 0	..	1 0	2½ to 5 per cent.	..	46,750	..	..
Waimate ..	649	1,500	550	316	520	1 0	..	..	..	..	7,326	..	..
Oamaru ..	1,111	5,400	1,082	1,120	1,526	1 3	..	1 6	(5)	..	30,760	..	..
Hampden ..	640	320	80	112	112	0 0¾	..	..	..	..	..	12,000	..
Palmerston S.	800	775	177	248	360	0 0½	..	..	..	..	..	38,806	..
Hawksbury ..	2,700	730	140	240	440	0 0½	..	..	..	..	..	45,644	..
Port Chalmers	335	2,100	491	462	565	1 0	..	0 6	(6)	..	11,836	..	..
North-east Valley	3,980	3,576	753	1,097	1,127	1 0	0 2	0 6	..	..	17,738	..	..
Maori Hill ..	3,700	1,500	319	312	358	1s. and 1s. 3d.	..	..	..	..	10,192	..	..
West Harbour	1,670	1,560	294	450	632	1 0	..	1 0	..	..	8,904	..	..
Dunedin ..	1,800	22,815	4,848	2,930	4,402	1 3	..	0 9	(6)	..	285,024	..	..
Roslyn ..	2,000	4,200	819	939	1,039	1 0	0 1	..	..	..	28,800	..	..
Mornington ..	654	3,700	802	810	883	1 3	0 3	0 1½	..	..	21,897	..	..
Caversham ..	1,073	4,900	972	773	1,050	1 3	0 3	0 3	5 per cent.	..	30,256	..	..
St. Kilda ..	463	1,290	261	396	1,336	1 0	..	0 6	..	..	9,068	..	..
South Dunedin	413	5,350	1,070	855	1,051	1 3	0 3	0 6	6 per cent.	..	21,208	..	..
Green Island	103	700	148	184	170	1 0	..	..	..	..	2,861	..	..
Mosgiel ..	967	1,500	310	322	494	1 0	..	..	..	..	8,126	..	..
Milton ..	265	1,500	250	220	300	1 0	..	..	..	..	6,462	..	..
Kaitangata ..	1,158	1,400	299	274	541	1 0	0 6	..	..	..	6,192	..	..

Balclutha ..	568	1,000	240	243	290	1 0	..	..	..	0 1	5,131	..	..
Lawrence ..	640	1,050	235	275	280	1 0	..	..	6d. and 3d.	..	7,515	..	..
Roxburgh ..	400	500	105	70	119	1 0	..	..	..	..	1,528	..	..
Tapanui ..	126	450	130	157	157	1 3	..	..	..	..	1,950	..	..
Naseby ..	112	550	150	140	165	1 0	..	..	(7)	..	2,317	..	..
Cromwell ..	640	580	160	135	221	1 3	..	0 10	0 2½	..	3,416	..	..
Alexandra ..	840	600	115	106	175	1 3	..	..	..	..	3,698	..	..
Arrowtown ..	390	400	130	106	179	1 0	..	..	1 0	..	2,084	..	..
Queenstown ..	923	750	271	175	714	1 0	..	0 6	(8)	..	4,795	..	..
Gore ..	1,150	2,800	520	610	1,317	1 0	..	..	..	..	15,868	..	..
Mataura ..	1,530	950	220	188	485	1 3	..	..	..	..	4,171	..	..
Winton ..	162	400	88	134	160	1 3	..	..	..	..	2,589	..	..
Invercargill ..	1,000	6,350	1,200	1,092	1,750	1 0	0 3	1 0	(5)	..	56,858	..	..
North Invercargill	326	950	194	244	319	1 3	..	1 8	..	..	3,912	..	..
South Invercargill	4,000	1,950	370	605	911	1 3	..	1 11	..	..	5,988	..	..
East Invercargill	121	985	180	215	215	1 3	..	0 9	..	..	3,986	..	..
Avenal ..	80	350	50	66	80	1 0	..	..	..	..	1,879	..	..
Gladstone ..	240	380	66	..	..	1 0	..	0 6	..	..	2,693	..	..
Campbelltown	2,000	1,200	300	312	589	1 3	..	..	..	..	7,799	..	..
Riverton ..	718	1,000	245	223	434	1 3	..	..	..	..	4,270	..	..
Totals ..	..	..	..	..	..	..	..	..	..	..	2,259,450	3,525,779	673,968

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* No later return than 1897–98.

† No return.

(1) Maximum under "Municipal Corporations Act, 1886."

(2) ½d. on capital value, £304,653, for charitable purposes.

(3) Special, ½d.; Christchurch drainage rate, ⅜d.; South Waimakariri River Board, $\frac{5}{64}$d.

(4) A charge of £1 per house per annum for water supplied, and by meter.

(5) Maximum under "Municipal Corporations Act, 1886."

(6) Under £12 10s., 10s.; under £300, 5 per cent.; over £300, 4 per cent.; buildings not supplied, half of above rates; stores, &c., 2½ per cent.

(7) 7, 6, 3½, and 2½ per cent. on rateable value.

(8) 6d. where water is laid on, and 3d. where not.

COUNTIES, 1898–99.

[NOTE.—For value of land and improvements see preceding section.]

Counties.	Area in Square Miles (including Boroughs).	Population, Census April, 1896 (excluding Boroughs).	Rates struck by County on Capital Rateable Value.	
			General.	Other.
Mongonui (1898)*	934	1,889	¾d.	
Whangaroa	160	969	1d.	
Hokianga	972	1,909	1d.	
Bay of Islands	826	2,723	1d.	
Hobson	688	3,750	1½d.	
Whangarei	928	6,847	¾d.	¾d. separate.
Otamatea	364	2,483	¾d.	½d. on part, ¾d. on part.
Rodney	566	3,464	¾d.	¾d. Hoteo Riding, ¼d. hospital and charitable aid.
Waitemata	613	6,762	¾d.	½d. separate in four ridings; ¾d. separate in four ridings.
Eden	43	15,940	..	
Manukau	791	12,185	..	
Coromandel	403	4,987	1½d.	¾d. on Native lands.
Thames	494	4,515	1½d.	
Ohinemuri	478	4,761	⅝d.	
Piako	1,095	2,706	¾d.	Separate ½d., Te Aroha Riding; special, ½d. Te Aroha Riding, $\frac{1}{10}$d. Patetere, $\frac{1}{24}$d. Taotaoroa.
Waikato	591	2,814	½d.	
Waipa	282	3,584	¾d., ½d.	Separate ¾d. Mangapiko, Hamilton, Alexandra outlying districts.
Raglan	824	1,545	⅛d., ¾d.	⅛d. hospital and charitable aid; ¼d. Karioi loan; $\frac{3}{20}$d. Waingaro loan.
Kawhia	1,515	598	..	
West Taupo	1,594	156	..	
East Taupo	2,581	232	..	
Rotorua	984	840	..	
Tauranga	577	1,622	¾d.	Special ¼d.; special ⅛d. Waimapu, ⅛d. Maketu, $\frac{1}{12}$d. Katikati Ridings.
Whakatane	3,156	1,988	⅜d.	
Waiapu	1,121	447	¾d.	¾d. special Tokomaru-Tuakau

Cook	1,950	5,287	¾d.	Various.
Clifton	1,446	1,450	1d.	⅛d. separate for loan.
Taranaki	583	9,970	⅜d.	1⅛⅜d. special on part for loan.
Stratford	768	5,141	¼d., ⅛d., ¾d.	Separate, ¼d. East, ⅛d. South, and West Ridings; special, various.
Hawera	438	6,934	¼d., ¾d.	Separate, ¼d. Hawera and Mangatoki outlying districts.
Patea	691	3,084	¾d.	1 1/7d. Kapara loan, 1 7/16d. Omuoa loan.
Waitotara	343	2,737	1 1/16d.	7/32d. 1 1/7d., 3⅛d. special on special rating districts.
Wanganui	1,942	3,095	¼d., ¾d.	⅛d., ⅜d. special, Long Acre; 7/16d. Denlair, 10/16d. Waikupa Subdivisions.
Rangitikei	852	6,030	¾d.	Special, various, in special rating districts; separate, various.
Kiwitea	836	2,428	¾d.	Special and separates rates, various.
Oroua	397	6,450	..	
Pohangina	295	1,351	¾d.	Separate, ¼d., ½d., ¾d.; special, various.
Manawatu	267	2,709	⅜d.	Separate, ⅛d., Awahou, 7/16d. Sandon, ⅜d., Waitohi and Campbell, ¼d., Mount Stewart, Carnarvon, and Kawakawa Ridings.
Horowhenua	591	3,792	⅜d., ¾d,	Special, various.
Wairoa	1,887	1,490	¾d.	Special, 1/32d. whole county, and 5/16d., 5/32d., and 1/64d. on part.
Hawke's Bay	3,232	6,894	14/20d.	
Waipawa	1,154	8,866	1d., 1¼d.	5/12d., 5/32., 1d., and 0·6539d. for interest on loans.
Patangata	747	2,374	1⅛d.	
Pahiatua	302	3,208	1d.	Forty-two special rates, various.
Akitio .. .. Wairarapa North .. Eketahuna	1,443	7,209	10/64d., ¾d., ⅜d.†	Seven separate ridings, rates average 5/16d.; thirty-two special, various.
Wairarapa South	1,281	5,409	..	⅛d. hospitals and charitable aid.
Hutt	590	5,750	¾d., ¼d.	Separate, ⅛d.; special, ⅜d., 5/16d., ⅛d., ⅛d.
Sounds	573	747	..	
Marlborough	3,812	6,330	..	
Kaikoura	673	1,575	¾d.	
Collingwood	1,029	2,509	¼d.	¼d. special.
Waimea	1,662	8,591	¾d.	⅛d. hospitals and charitable aid; special for loans.
Buller	1,818	4,833	1⅛d.	Separate, ⅛d. hospitals and charitable aid; special, 3¾d.
Inangahua	2,256	4,254	1d. 1¼d.,	Special, ⅛d., 5/16d. Reefton Town, 2¼d. Boatman's irrigation district.

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* No later return.

† County, 10/64d.; Whareama outlying district, ¾d.; Alfredton outlying district, ¾d.

ROAD DISTRICTS, 1898–99.

NOTE.—For value of land and improvements see Statistical Volume for 1898, pp. 460–465.

County and District.	Population, Census, 1896.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
Mongonui—					d.
Oruru (1898)	534	108	..	..	⅛
Whangaroa **Bay of Islands** **Hokianga** **Hobson** (No road districts.)					
Whangarei—					
Hikurangi	354	120	90	130	¾
Kaurihohore	212	32	55	61	¾
Kensington	324	17	27	31	¾
Maungakaramea	227	56	102	102	¾
Maunu	557	140	150	150	¾
Otonga	207	52	57	59	¾
Otonga East	246	68	81	109	¾
Parua Bay	299	155	205	255	¾
Ruarangi	117	21	69	70	¾
Waikiekie	180	32	227	265	¾
Waipu North	209	46	85	93	¾
Whareora	101	63	78	80	¾
Otamatea—					
Mangawai	272	54	90	..	¾
Matakohe	328	74	168	227	¾
Whakapirau (no Board)					
Rodney—					
Albertland North	61	11	45	45	¾
Albertland South	347	78	229	234	¾
Ahuroa	36	12	45	55	¾
Komokoriki	79	14	39	45	¾
Mahurangi East	135	34	74	74	¼
Mahurangi Upper	833	176	270	408	¾
Mainene	54	12	34	44	¾
Matakana East	109	15	22	22	¼
Matakana West	194	61	70	148	¾
Omaha	337	86	156	198	¾
Puhoi	465	82	118	146	¾
Tauhoa	409	69	91	..	¾
Wharehine	101	20	34	35	¾
Waitemata—					
Kaukapakapa	577	100	190	312	¾
Pukeatua	650	212	269	271	¾
Whangaparaoa	107	22	36	42	¾

ROAD DISTRICTS, 1898–99—*continued.*

County and District.	Population. Census, 1896.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the Pound on the Capital Value.
Eden—					d.
Avondale (1898)	901	200	268	322	..
Arch Hill	1,557	356	285	572	1s.(1)
Eden Terrace	1,604	405	293	438	⅜(2)
Epsom	660	130	123	134	¾
Mount Albert	1,668	285	440	525	¾
Mount Eden	3,677	930	850	1,043	¾(3)
Mount Roskill	495	91	160	238	⅛
Mount Wellington	876	173	220	576	¾
One-tree Hill	975	162	166	238	⅛
Panmure Township	323	70	72	90	⅛
Point Chevalier	591	31	36	44	⅛
Remuera	2,034	420	374	485	¾
Tamaki West	382	88	104	121	⅝
Manukau—					
Awhitu	372	101	118	147	⅛
Howick Town	220	70	115	130	¾
Hunua	230	30	135	150	¾
Karaka	189	..	..	..	¾
Mangare	854	163	155	199	⅛
Manurewa	213	56	82	122	⅛
Maraetai	96	23	26	34	(4)
Mauku	423	90	140	208	½(5)
Maungatawhiri	293	45	62	95	½
Mercer Township	215	42	65	73	¾
Opaheke	462	80	111	..	¾
Opaheke North	367	96	162	211	¾
Otahuhu	942	306	267	342	¾
Pakuranga	346	66	70	94	¾
Papakura	393	70	97	100	¾
Paparata	407	84	112	162	¾
Paparoa	107	39	69	92	¾
Papatoitoi	176	37	37	53	⅛
Pokeno	405	74	97	140	¾(6)
Pollok Settlement	133	20	37	46	⅛
Pukekohe East	884	200	239	239	¾
Pukekohe West	1,104	202	224	232	¾
Tamaki East	668	113	117	138	¾
Turanga	209	41	66	75	¾(7)
Waipipi	827	170	200	230	¾(8)
Wairoa	859	200	200	300	¾
Waiuku	454	180	210	220	¾
Coromandel Thames Ohinemuri (No road districts.)					

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(1) On annual value. and 1/16d. special. (2) ⅝d. special. (3) ⅛d. special. (4) No rate struck. (5) ½d. (6) ⅛d. special. (7) ⅛d. and ½d. special. (8) ½d. special.

ROAD DISTRICTS, 1898–99—*continued.*

County and District.	Population, Census, 1896.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
Piako—					d.
Matamata	231	44	57	76	⅛
Waitoa	979	260	223	339	⅛
Waikato—					
Cambridge	538	90	93	93	⅛
Kirikiriroa	823	150	251	251	⅛
Tamahere	202	22	38	38	⅜
Whangamarino	407	77	198	422	⅛d. & ⅜d.
Huntly	844	300	230	269	⅜
Waipa—					
Newcastle	393	87	156	133	⅜
Pukekura	802	185	370	380	⅛
Rangiaohia	549	100	130	130	⅜
Tuhikaramea	89	20	52	52	⅜
Raglan—					
Karamu (no Board)	74	..	..	..	..
Onewhero	170	48	59	68	.. (1)
Te Akau (no Board)	51	..	..	..	..
Kawhia West Taupo East Taupo Rotorua } (No road districts.)					
Tauranga—					
Katikati	397	70	137	300	⅜
Te Puke	397	94	125	161	¾
Te Puna	165	30	135	140	.. (1)
Whakatane—					
Opotiki	584	120	201	..	⅛
Whakatane	467	200	281	281	¾(2)
Waiapu. (No road districts.)					
Cook—					
Aroha	..	5	7	7	(1)
Kaiti	565	110	156	216	¾(3)
Ngatapa	434	101	82	95	(1)
Ormond	461	104	104	124	⅛
Patutahi	582	87	112	266	¼
Pouawa	55	45	75	110	(4)
Poverty Bay	1,087	130	203	203	½(5)

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(1) No rate struck. (2) ¾d. special. (3) ⅜d. and ¾d special (4) Special, various.
(5) 3/16d. special

ROAD DISTRICTS, 1898–99—*continued.*

County and District.	Population, Census, 1896.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
Cook—*continued.*					d.
Taruheru	..	45	53	53	(1)
Te Arai	285	78	55	188	⅛(2)
Titirangi (constituted in March, 1899)					
Waikohu	139	30	30	85	(1)
Waimata	259	47	47	50	½
Waipaoa	..	9	7	16	(1)
Whataupoko	936	170	242	280	¾(2)
Clifton. (No road districts.)					
Taranaki—					
Barrett	372	89	89	116	½
Carrington	232	53	74	74	½(3)
Egmont	667	98	154	154	½(4)
Elliot	215	37	49	55	⅜
Frankley	278	52	65	65	½
Henui	391	74	91	115	½
Hurford, Upper	69	16	17	17	½
Mangorei	246	51	61	61	9/16
Moa	2,451	450	500	550	⅜(5)
Oakura	320	52	126	..	¼
Okato	306	60	78	125	¼
Omata	291	61	54	78	½
Parihaka	1,187	251	336	765	¼(6)
Tataraimaka	126	25	36	36	¼
Waitara West	851	164	172	315	⅝
Waiwakaiho	393	73	101	183	¾
Stratford—					
Manganui	1,478	330	344	679	¾(6)
Hawera—					
Waimate	2,229	450	498	688	¾(7)
Patea—					
Kohi	195	32	30	30	¾
Motoroa	37	16	19	19	¾
Okotuku	144	24	29	33	¼
Patea East	384	65	83	355	(1)
Patea West	799	175	183	630	(8)
Wairoa	98	22	30	30	¾
Waitotara-Momohaki	492	114	125	357	¾
Whenuakura-Waitotara	334	40	42	42	¼
Waitotara. (No road districts).					

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(1) No rate struck. (2) ⅛d. special. (3) ⅛d. special. (4) ⅛d. and ⅛d., special. (5) ⅛d. special. (6) Special, various. (7) ⅛d., 1d., 2¾d., special. (8) ⅛d. special.

[illegible]	[illegible]	[illegible]	[illegible]	1,035	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	343	[illegible]
[illegible]	--	[illegible]	700	1,021	[illegible]
(No road statistics.)					
[illegible]	404	100	120	238	[illegible]
[illegible]	249	46	54	191	1
[illegible] North	1,043	181	257	270	1½
[illegible]	581	112	84	95	[illegible]
[illegible]	523	85	64	92	[illegible]
[illegible]	827	58	67	78	[illegible]
[illegible]	816	110	149	..	[illegible]
[illegible]	1,001	160	280	300	[illegible]

ROAD DISTRICTS, 1898-99—*continued.*

County and District.	Population, Census, 1896.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the Pound on the Capital Value.
Wairarapa North—					d.
Castlepoint	657	84	81	118	½(1)
Masterton	2,062	380	350	438	7/16, 5/16, ⅜(2)
Mauriceville	1,086	264	259	358	13/32
Taueru Upper	211	46	49	49	5/16(3)
Akitio—					
Akitio	453	200	356	380	½
Eketahuna—					
Eketahuna	2,159	..	590	1,152	¼(4)
Wairarapa South—					
Featherston	2,204	450	400	600	¾
Taratahi-Carterton	2,494	550	473	632	1d. & 5/16 (5)
Hutt—					
Makara	278	38	42	59	½(6)
Seatoun	175	90	96	126	¾(7)
Plimmerton. (In first year.)					
Sounds. (No road districts.)					
Marlborough—					
Awatere	432	75	51	82	¾
Omaka	1,617	250	363	438	⅝
Pelorus	1,407	280	280	240	¾(8)
Picton	866	182	159	251	⅝
Spring Creek	769	120	183	183	½
Wairau	874	146	128	200	½
Kaikoura. (No road districts.)					
Collingwood—					
Collingwood	1,019	310	303	529	¾
Takaka	1,405	325	310	764	¾
Waimea—					
Dovedale (1898)	327	48	72	72	¼
Motueka	976	..	..	..	..
Moutere Upper	409	100	..	..	..
Riwaka	624	..	..	..	..
Stoke	1,244	..	..	210	..
Suburban North	593	115	..	..	..
Waimea West	422	84	74	74	..

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(1) 1/20d. special. (2) Thirty special rates. (3) 5/16d., 13/16d., 2⅛d. special.
(4) Special, various. (5) Special, various, for loans. (6) ½d. special. (7) 1d. special.
(8) ⅜d. special.

ROAD DISTRICTS, 1898–99—*continued.*

County and District.	Population, Census, 1896.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
Buller Inangahua Grey Westland Amuri } (No road districts.)					
Cheviot (no Board).					d.
Ashley—					
Ashley	686	150	172	250	½
Cust	771	157	137	215	⅜
Eyreton	1,726	320	274	274	⅝
Eyreton West	397	85	77	77	¼
Kowai	1,967	..	..	729	½
Mandeville and Rangiora	2,488	522	428	593	½
Oxford	2,213	460	471	680	½
Waipara	1,227	292	270	483	½
Selwyn—					
Avon	4,532	1101	814	1,068	1s.(1)
Courtenay	2,491	414	462	615	⅜
Ellesmere	3,841	..	586	847	⅜
Halswell	1,179	220	200	240	¾
Heathcote	2,369	474	702	750	$\frac{29}{40}$(1)
Lake Coleridge	141	30	34	84	(2)
Lincoln	1,322	368	248	317	⅜, $\frac{9}{16}$(3)
Malvern	707	168	159	297	½
Malvern East	628	132	167	283	¼
Malvern South	483	82	205	333	¼
Rakaia	889	184	196	333	¼
Riccarton	5,206	940	1,004	1,270	$\frac{9}{16}$
Spreydon	1,278	265	305	346	⅝(4)
Springs	1,984	450	404	495	½
Taitapu	376	80	63	70	¾
Templeton	2,048	446	502	644	½
Waimakariri Upper	122	21	13	41	(2)
Akaroa—					
Akaroa and Wainui	1,416	220	242	356	⅝
Le Bon's Bay	271	57	82	82	½(5)
Little River	820	250	156	146	½
Okain's Bay	567	..	102	121	½
Pigeon Bay	352	58	51	59	¾
Port Levy	132	32	45	53	½
Port Victoria	328	60	64	80	¾
Ashburton—					
Anama (1898)	69	14	17	20	½

(1) On the annual value; special, various. (2) No rate struck. (3) $\frac{1}{7}$d. and $\frac{5}{64}$d. special. (4) $\frac{1}{7}$d. separate. (5) $\frac{7}{16}$d. special.

ROAD DISTRICTS, 1898–99—*continued.*

County and District.	Population, Census, 1896.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the Pound on the Capital Value.
Ashburton—*continued.*					d.
Ashburton Upper	1,811	360	490	664	(1)
Coldstream	365	60	70	88	⅜
Longbeach	1,400	..	227	314	Various(2)
Mount Hutt	1,157	260	273	380	¼
Mount Somers	918	185	227	227	⅝
Rangitata	703	160	243	290	¼
South Rakaia	1,558	316	340	486	¼
Wakanui	1,087	187	230	271	¼
Geraldine—					
Geraldine	2,424	470	509	610	½
Mount Peel	517	92	88	103	¼
Temuka	2,268	415	508	642	⅜
Levels Mackenzie Waimate Waitaki Waihemo Waikouaiti } (No road districts.)					
Peninsula—					
Otago Heads	306	46	63	123	¼
Peninsula	1,294	219	333	393	¾
Portobello	877	..	335	356	¾
Tomahawk	168	23	33	44	¾
Taieri. (No road districts.)					
Bruce—					
Balmoral	370	54	65	84	(3)
Inch-Clutha (Road and River)	420	67	74	74	¾(4)
Mount Stuart	708	114	114	124	¼
Clutha Tuapeka Maniototo Vincent Lake } (No road districts.)					
Southland—					
Invercargill (no Board)	1,382	..	..	..	..
Knapdale	1,391	290	292	353	⅝
Oteramika	1,894	365	466	466	¾
Tuturau	732	99	105	145	½
Wallace Fiord Stewart Island } (No road districts.)					

(1) Various. (2) $\frac{7}{16}$d. in Wards Nos. 1 and 5, $\frac{9}{32}$d. in Ward No. 3, and $\frac{17}{32}$d. in Wards Nos. 2 and 4. (3) ⅜d. separate on part of district. (4) ⅜d. river rate.

SECTION XII.—LICENSES AND LICENSED HOUSES, Etc.

Licenses and Licensed Houses.

During the year ended the 31st March, 1899, 2,386 licenses for the sale of intoxicating liquors were granted. Of these, 1,524 were publicans' and accommodation licenses, 7 New Zealand wine, 56 packet, 131 wholesale, and 668 conditional licenses. The fees paid amounted to £53,549, and formed part of the revenue of the local governing bodies of the districts in which the licenses were issued. Particulars are given in the following table:—

Number of Licenses granted during the Year 1898–99, and the Amount of Fees paid to Local Bodies therefor.

Licenses.	In Counties.	In Boroughs.	Total.
Publicans' licenses	624	677	1,301
Accommodation licenses	223	..	223
Total licensed houses	847	677	1,524
New Zealand wine licenses	..	7	7
Packet licenses	13	43	56
Wholesale licenses	10	121	131
Conditional licenses	478	190	668
Total licenses granted	1,348	1,038	2,386
Amount of license-fees paid to local bodies	£20,221	£33,328	£53,549

The average number of persons to each licensed house in counties and boroughs respectively, for 1898–99, is next shown:—

	Number of Licensed Houses.*	Estimated Population.	Average Number of Persons to each Licensed House.
Counties	847	400,792	473
Boroughs	677	341,550	505
Totals	1,524	742,342†	487

In 1897–98 the number of licensed houses in counties was 849, and those in boroughs 677, giving a total of 1,526 houses, or 2 more than in 1898–99. The average number of persons to a house increased from 469 in 1897–98 to 473 in 1898–99 in counties, and in boroughs the average increased from 487 to 505.

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* *I.e.*, houses holding publicans' or accommodation licenses.
† Excluding persons on shipboard and adjacent islands.

The annual fees paid for licenses are—

	£
(1.) For a publicans' license	
(a.) Within the limits of a borough or town district	40*
(b.) Outside the aforesaid limits	25
(2.) For a New Zealand wine license	1
(3.) For an accommodation license, a sum to be determined by the Licensing Committee, not exceeding	20
(4.) For a packet license—	
(a.) For a vessel exceeding 50 tons register	10
(b.) For a vessel not exceeding 50 tons register	5
(5.) For a wholesale license	20
(6.) For a conditional license, according to duration of license, a sum not exceeding	30

The approximate capital value of the licensed houses in the counties was stated at £736,257, and the same for certain of the boroughs at £193,229. There was, besides, an annual value of £111,583 for other licensed houses in the boroughs, which, capitalised at 6 per cent., would represent £1,859,716. The capital value of all licensed houses would therefore be about £2,789,202.

The total number of persons engaged in or connected with the sale or manufacture of wine, spirits, beer, cordials, &c., was returned at the census of 1896 as under:—

	Males.	Females.	Persons.
Hotelkeeper	1,334	204	1,538
Relative assisting	157	348	505
Manager, clerk	67	11	78
Hotel, club, &c., servant	1,136	2,075	3,211
Manager, secretary, steward of club-house	32	3	35
Barman, barmaid	196	210	406
Wine, spirit, ale merchant	43	..	43
Assistant	5	1	6
Clerk, book-keeper, accountant, traveller, storeman	44	..	44
Cordial, &c., merchant, salesman	5	..	5
Brewer, bottler	234	4	238
Manager, clerk, traveller	53	..	53
Relative assisting, apprentice	18	..	18
Cellarman, assistant, carter, &c.	151	1	152
Maltster and assistants	118	..	118
Distiller, bottler	2	..	2
Wine-maker, -bottler	9	..	9
Cordial, &c., maker	293	6	299
Clerk, book-keeper, traveller	6	..	6
Totals	3,903	2,863	6,766

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* Between the hours of six in the morning and ten at night. For an eleven o'clock license an additional £5 must be paid.

Remarks on the high rate of mortality ruling amongst men connected with the liquor trade in respect of various diseases, as compared with the death-rate of males engaged in other occupations, will be found on page 140, in Section III., dealing with vital statistics.

LOCAL OPTION POLL.

Under "The Alcoholic Liquors Sale Control Act, 1893," each electoral district constituted for the election of a member of the House of Representatives is a licensing district, and electors for the House of Representatives are also electors under the Licensing Acts.

Under the Amendment Act of 1895 the licensing poll is taken at the same time as the general election of members of the House of Representatives. The questions for the decision of the voters are,—

(1.) Whether the number of licenses existing in the district shall continue?

(2.) Whether the number shall be reduced?

(3.) Whether any licenses whatever shall be granted?

The voter may vote for one or two of these proposals, but no more.

The method of determining the result of the poll in each district by the Returning Officer is as follows:—

(1.) If the number of votes recorded in favour of the continuance of existing licenses is an absolute majority of all the voters whose votes were recorded, the proposal is to be deemed to be carried, and the licenses continue until the next poll, subject to certain provisions in special cases.

(2.) If the number of votes recorded in favour of a reduction in the number of licenses is an absolute majority of all the voters whose votes were recorded, the proposal is deemed to be carried, and supersedes the proposal for continuance of licenses. The Licensing Committee then reduces publicans' licenses by not less than 5 per cent. or more than 25 per cent. of the total number existing, excluding forfeitures. Provision is made that when a reduction vote is carried the licenses shall be reduced by one at least when the total number does not exceed ten, two when not over twenty, and three at least when the licenses exceed thirty.

(3.) If the number of votes recorded in favour of the proposal that no license shall be granted is not less than three-fifths of all the voters whose votes were recorded, the proposal is declared to be carried, and supersedes the proposal for reduction and for continuance, and no licenses can be granted.

(4.) If none of the proposals respecting licenses are carried by the prescribed majority the licenses continue as they are until next poll, subject to certain provisions in special cases.

The result of the poll taken on 6th December, 1899, for each licensing district is as follows:—

RESULT OF LICENSING POLL, 1899.

District.	Number on Roll.	For Continuance.	For Reduction.	For No License.	Total Number of Persons who voted at Poll.			Informal Votes.	Result of Poll.
					Men.	Women.	Total.		
Bay of Islands	5,539	2,381	992	1,195	2,652	1,276	3,928	41	Continuance carried.
Marsden	5,541	2,029	1,227	1,517	2,398	1,313	3,711	..	"
Waitemata	4,876	1,943	1,018	1,184	2,116	1,188	3,304	63	"
Eden	5,538	2,278	2,027	1,919	2,421	2,134	4,555	160	"
City of Auckland	18,336	6,916	6,263	5,869	7,187	6,519	13,706	400	"
Parnell	6,079	2,372	1,903	1,724	2,198	2,376	4,574	107	"
Manukau	5,338	1,952	1,711	1,492	2,082	1,853	3,935	..	No proposal carried.
Franklin	4,796	1,662	1,535	1,635	2,177	1,581	3,758	167	"
Thames	6,236	2,153	2,056	2,374	2,764	1,986	4,750	144	"
Ohinemuri	7,873	2,289	2,175	3,127	3,731	1,898	5,629	141	"
Waikato	5,232	2,737	1,234	1,445	2,533	1,850	4,383	164	Continuance carried.
Bay of Plenty	4,786	2,294	1,099	1,403	2,371	1,626	3,997	236	"
Waiapu	6,106	2,417	1,941	2,562	3,222	1,799	5,021	..	No proposal carried.
Hawke's Bay	4,869	96	539	629	376	384	760	18	Poll invalid.
Napier	4,931	1,933	1,798	1,685	2,084	1,929	4,013	211	No proposal carried.
Waipawa	4,906	2,147	1,363	1,741	2,606	1,548	4,154	217	Continuance carried.
Pahiatua	4,501	1,909	1,305	1,713	2,368	1,425	3,793	8	"
Masterton	5,172	1,853	1,676	2,001	2,349	1,531	3,880	..	No proposal carried.
Wairarapa	4,674	2,021	1,286	1,558	2,411	1,509	3,920	..	Continuance carried.
Egmont	5,325	2,135	1,670	1,977	2,880	1,409	4,289	136	No proposal carried.
Taranaki	5,679	2,624	1,696	1,872	2,623	2,137	4,760	63	Continuance carried.
Hawera	5,192	1,981	1,573	1,874	2,494	1,635	4,129	212	No proposal carried.
Patea	4,847	1,932	1,091	1,462	2,305	1,318	3,623	..	Continuance carried.
Wanganui	6,401	2,795	1,731	2,162	2,781	2,426	5,207	152	"
Rangitikei	5,609	1,911	1,047	1,621	2,564	1,211	3,775	155	"
Palmerston	5,350	2,139	1,321	1,582	2,268	1,787	4,055	166	"
Manawatu	4,502	1,670	1,161	1,448	2,194	1,204	3,398	164	"
Otaki	4,234	1,903	942	987	2,068	1,303	3,371	..	"
Suburbs of Wellington ..	6,126	1,939	1,860	2,120	3,179	2,947	6,126	246	No proposal carried.
City of Wellington ..	18,874	7,578	6,447	6,194	8,489	7,079	15,568	837	Continuance carried.
City of Nelson	5,368	2,594	1,663	1,348	2,222	2,291	4,513	109	"
Motueka	4,286	1,945	681	864	1,852*	1,142*	2,994	148	"

* Approximate.

SECTION XIII.—ACCUMULATION: PRICES AND WAGES.

BANKS OF ISSUE.

IN December, 1899, five banks of issue were doing business in New Zealand, the Bank of New Zealand and the Colonial Bank having amalgamated in 1895. Two of the five banks, the Bank of New Zealand and the National Bank of New Zealand (Limited), were wholly New Zealand institutions, with a paid-up capital of £1,250,000, besides which the Bank of New Zealand has £2,000,000 of 4 per cent. guaranteed stock. The Government hold shares to the value of £500,000 in the Bank of New Zealand. The total average liabilities of all five banks for the year 1899 in respect of New Zealand transactions were £15,834,858, and the average assets £17,190,433. The average amount on deposit during the year was £14,591,223, of which sum £790,319 belonged to the General Government. Excluding those belonging to Government, deposits to the value of £7,867,843 were bearing interest, and £5,933,061 at call. The value of the notes in circulation of these banks was £1,163,759.

The development of banking in New Zealand since the year 1857 has been very great. Taking for each year the average of the four quarters' returns made by the banks of issue, the figures for 1857, 1868, 1879, 1889, and 1899 are:—

Year.			Deposits. £	Assets. £	Liabilities. £
1857	..	..	343,316	419,860	433,494
1868	..	..	3,102,727	5,734,745	3,838,290
1879	..	..	8,021,073	16,054,295	9,057,463
1889	..	..	11,528,424	17,652,915	12,486,717
1899	..	..	14,591,223	17,190,433	15,834,858

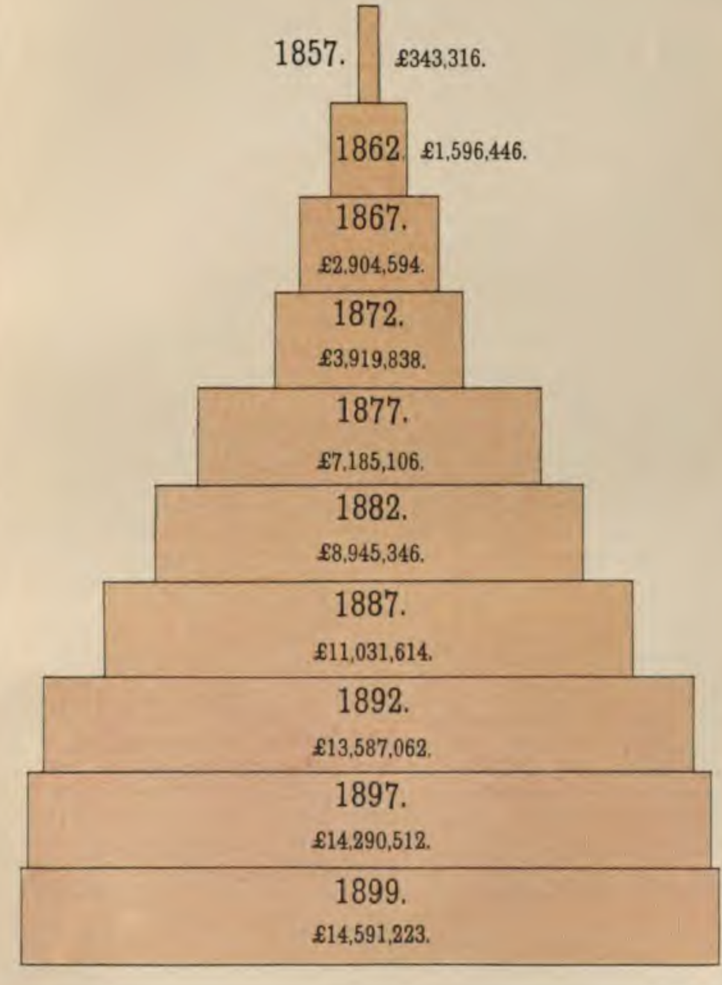
In 1879 the deposits of these banks were £17·90 per head of the mean population. In 1889 they were £18·15 per head; and in 1899, £19·46. The ratio of advances to deposits, which was 167·22 per cent. in 1879, reached its maximum in 1883, when it stood at 173·35 per cent. The proportion since that year fell, till in 1897 it was only 76·21 per cent. In 1898, however, the ratio had advanced to 80·52 per cent., and in 1899 still further, to £80·92 per cent.

The following figures, which are taken from the published returns for the December quarter of each year, show that the value of the coin and bullion held by all the banks of issue doing business in New Zealand rose steadily from 1891 to 1895, in which year the value stood at £3,333,272. Since that date, however, the

DIAGRAM No. 7.

BANKS OF ISSUE.—AMOUNTS ON DEPOSIT, 1857-1899.

(The sums given in the diagram are the average of four quarters returns for each year.)



value has gradually decreased year by year to £2,636,177 in December quarter, 1899 :—

Quarter ended 31st December.	Coin.	Gold and Silver in Bullion or Bars.	Total Coin and Bullion.
	£	£	£
1890	2,421,530	169,659	2,591,189
1891	2,231,242	126,346	2,357,588
1892	2,381,319	141,406	2,522,725
1893	2,480,453	121,496	2,601,949
1894	3,103,355	118,121	3,221,476
1895	3,199,889	133,383	3,333,272
1896	3,171,702	122,901	3,294,603
1897	2,848,183	107,635	2,955,818
1898	2,625,896	126,349	2,752,245
1899	2,511,102	125,075	2,636,177

The figures shown for each quarter of the year 1899 are :—

	Coin.	Bullion.
	£	£
March quarter, 1899	2,603,271	116,227
June „	2,540,310	151,432
September „	2,503,976	150,052
December „	2,511,102	125,075

In 1886 the average amount of advances made by the banks was £15,853,420, equal to £27·23 per head of the mean population. The advances gradually declined in amount and proportion to population until 1891, when they were in value £11,549,145, or £18·34 per head. During the years 1892 and 1893, however, there was a rise, but in 1894 a fall to £12,031,537 (£17·71 per head), and in 1897 to £10,892,111, or £15·09 per head, which is the lowest average since the year 1872. In 1898, however, an increase both in the average amount of advances and in the rate per head of population (£11,387,321 and £15·47 respectively) was observed, and in 1899 there was a further increase to £11,806,859, or £15·74 per head. The discounts in 1899 were less in amount and in rate per head than in any year since 1872. The largest amount of discounts in any year was £6,061,959 in 1879, a rate of £13·53 per head. From 1879 there was a fall year by year until 1896, when the sum was £1,756,791, or £2·49 per head. In 1897 they totalled £1,768,845, but, with a comparatively larger population, the rate per head was only £2·45. In 1898 the amount fell to £1,719,715, and the rate per head to £2·34. In 1899 there was a further decline in the amount to £1,692,201, and in the rate per head to £2·26.

The deposits, as stated in the returns for the March quarters of the years 1900 and 1899, were :—

	£
Deposits not bearing interest, March quarter, 1900	6,689,583
„ „ „ March quarter, 1899	5,769,555
An increase of	£920,028

in the amount held at call. This vast increase indicates a different condition of affairs from that which obtained twelve months previously, when the returns showed a decrease of deposits not bearing interest for the March quarter of 1899, when compared with the same quarter of 1898.

The fixed deposits show a reverse movement, but of less magnitude:—

	£
Deposits bearing interest, March quarter, 1900 ..	7,801,601
" " March quarter, 1899 ..	7,837,265
A decrease of	£35,664

Besides the above, the Government had with the Bank of New Zealand £874,258 on deposit in March, 1900, as against £935,463 in March, 1899.

Special Banking Legislation.

An Act was passed in 1893 intituled "The Banks and Bankers Act Amendment Act," under which, notwithstanding anything in previous legislation, the shareholders or proprietors of any bank may, from time to time, by extraordinary resolution, authorise its capital to be increased to such an amount and upon such terms as are deemed by them to be expedient. The holders of shares in such increased capital may be granted special privileges notwithstanding anything contained in the charter of the bank.

Any increased capital may be raised by the issue of new shares of such amount as is determined on by extraordinary resolution of the shareholders or proprietors.

The Bank-note Issue Act of the same year provides that notes issued or circulated in the colony by any bank shall, to the amount of the authorised issue, be a first charge on all the assets and property (including the paid-up capital, uncalled capital, and reserve fund—"Banking Act, 1894") of such bank, and that the notes shall be payable in gold only at the office of the bank at the place of issue of the said notes.

The assets and property of a bank are defined as assets for the payment of debts or other obligations contracted or entered upon or due and payable in the colony.

The other clauses (Part II.) of the same Act were originally passed for twelve months only, but their operation was extended in 1894 for another twelve months—viz., till September, 1895. As amended by subsequent enactments, they run as follows: The Governor may declare by Proclamation the notes of any bank named to be a legal tender of money to the amount therein expressed to be payable. The period of time is to be limited by the Proclamation, and no such Proclamation is to be made unless the Governor in Council is satisfied that, as between the bank and its creditors, its assets in the colony exceed its liabilities in the colony. The bank must further pay all such notes in gold on presentation, after expiry of the time limited, at the office of the bank at the place of issue At any time within six months after the period limited by the Proclamation, the Colonial Treasurer, on being satisfied that a bank-note covered by the Proclamation has been presented and not paid, shall pay the same in gold to any *bonâ fide* holder.

On the 29th June, 1894, the Colonial Treasurer introduced in the House of Representatives three Bills relating to banking, which were thereupon passed through all stages and became law forthwith.

The most important of these, intituled "An Act to guarantee out of the Consolidated Fund a Special Issue of Shares by the Bank of New Zealand to the Amount of Two Million Pounds Sterling," provided for the increase of the capital by the issue of shares* to an amount not exceeding two million pounds sterling, in guaranteed shares of ten pounds each, without further liability. These shares are preferential in respect of both capital and dividend, and the liability of the holders of ordinary shares is to secure payment of the guaranteed shares and the dividends thereon. The directors can refuse to register the transfer of ordinary shares. The guaranteed shares are to be called in at the end of ten years, and cancelled on payment of the principal sum with accrued dividend. The rate of dividend on preferential shares is not to exceed 4 per cent. per annum, and is to be paid by the bank. The guaranteed or preferential shares and dividends thereon are to be a charge upon and, in case of default by the bank, payable out of the Consolidated Fund of the colony; but if at any time any money shall be payable under the guarantee, the assets and property of the bank are to be security for the repayment of money so advanced; if the money be not repaid, the Colonial Treasurer may appoint a Receiver.

One-half of the sum of two million pounds authorised by the Act to be raised is to be at the disposal of the bank for use in its ordinary business, and the remainder is to be invested as the Colonial Treasurer may approve, or as may be specially provided by law. Until the guaranteed shares are called in and cancelled, no dividend is to be paid to ordinary shareholders without the consent of the Colonial Treasurer, who is empowered to satisfy himself that any proposed dividend will not unduly affect the security of the colony in respect of the guarantee.

By section 5 of the Act, the Colonial Treasurer might require the directors to call up £500,000, being one-third of the reserve capital, within twelve months, and this has accordingly been done.

As provided by the Act, the head office of the bank was removed to Wellington, and a new Board of directors elected. The Governor in Council appointed a President (*office since abolished under Act of 1898, see* post), and an Auditor of the business outside the United Kingdom. An Auditor of the business within the United Kingdom was appointed by the Agent-General.

The shares held in the Bank of New Zealand Estates Company (Limited) by the bank are, pending the completion of liquidation, to be treated in valuing as at par.

"The Bank Shareholders Act, 1894," provided that the directors of any bank may decline to register any transfer of shares upon which there is any liability made by a shareholder to any person of whose responsibility they may not be satisfied. "The Bank Directors and Shares Transfer Act, 1894," gave authority to directors to refuse approval, without assigning reasons, to any transfer of shares on which there is liability. It limited the number of directors to not less than five or more than seven. (See subsequent legislation in 1898 as to directory.)

"THE BANK OF NEW ZEALAND AND BANKING ACT, 1895," AND ITS AMENDMENT ACT.

This Act was passed on the 4th of September, 1895. It provided for writing off the paid-up capital of the Bank of New Zealand (£900,000), together with the proceeds (estimated at £450,000) of the first call of £3 6s. 8d. on the reserve liability of £10 per share.

A sum of £500,000 new capital is raised by preferred shares, and issued to the colony in exchange for Government securities. The preferred shares bear interest at 3½ per cent. The bank may within six years repurchase them at par. Further share capital is created by a second call of one-third of the reserve liability (£3 6s. 8d. per share) in four instalments, and the final third may be called up at any time after the 31st December, 1898. The sum of one million pounds, required by the Share Guarantee Act of 1894 to be invested as the Colonial Treasurer might approve, is released for employment by the bank in its ordinary business. So long as the colony remains liable under the Act, one of the directors of the bank is to be appointed by the Governor, and one of the present directors is to resign to make way for the Government appointee. (See subsequent legislation in 1898 as to directory.)

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* By further Amendment Act these shares were to be issued in the form of negotiable stock certificates or warrants to bearer, of such amounts as the directors may determine. The certificates with warrants or coupons are transferable by delivery. The holders of stock certificates or warrants may exchange these for registered stock, which is made transferable in such amounts as directors may sanction. Shares or stock may be held by any person without limit as to number, provided that the total value does not exceed two millions sterling.

An Assets Realisation Board is established to purchase all the assets of the Estates Company, and of the Auckland Agricultural Company, for the sum of £2,731,706, being the estimated value of the properties on the 31st of March, 1895, subject, however, to an adjustment of station accounts, the purchase-money to be paid in debentures issued by the Assets Board, having a nine years' currency and bearing interest at 3½ per cent. per annum from the 31st March, 1895, any deficiency to be guaranteed by the Government as a charge upon the Consolidated Fund of the colony.

Provision is made for securing the Government against loss on account of this guarantee, and the Colonial Treasurer may, in the event of any deficiency, appoint a Receiver in respect of the securities with the powers of a liquidator appointed by the Supreme Court. The Assets Realisation Board is a body corporate, consisting of three members, two appointed by the Governor and one chosen by the directors of the bank.

Section 3 of "The Banking Act, 1894," is repealed, and power is given to the Bank of New Zealand to purchase the business and assets of any other bank doing business in the colony, excepting such assets as are found to be bad, doubtful, or valueless. Any such purchase is conditional on ratification by the shareholders of the selling bank and the approval of Parliament. [*The business of the Colonial Bank of New Zealand has since been purchased under the authority given, the contract being approved under the Amendment Act of 1895, section 3, and subsequently ratified by the shareholders of the selling bank.*]

So long as the colony remains in any measure liable under the Act, or the Share Guarantee Act of 1894, the proprietors of the bank may not take any steps towards winding up or dissolving the bank.

The Assets Board are to draw up a balance-sheet every six months, and lay the same before Parliament.

"The Bank of New Zealand and Banking Act, 1898."

Consequent on the report of a Committee of the House of Representatives appointed to make inquiries respecting the affairs of the Bank of New Zealand, a statute was passed in 1898 bearing the above title.

It provides for a Board of Directors consisting of six persons, instead of five, of whom four are appointed by the Governor in Council and two elected by the shareholders of the bank.

The office of President is abolished, with its power of veto; while the old constitution of the Board, under which the President and one director only were appointed by the Governor in Council, and three by the shareholders, gives way to the new one.

Of the four members in the new Board who are appointed by the Governor in Council, two retire on the 31st March, 1901, the retiring directors being decided by lot amongst the four. On the 31st March, 1902, and on the same day in each subsequent year, the two members who have been longest in office retire. The ordinary time of office of the four members is thus two years.

The two directors elected by the shareholders of the bank hold office for an ordinary term of two years, subject to the provision that one is to retire on the 31st March, 1901, it being decided by lot between the two which is to retire.

On the above-named day in 1902, and the same day in each subsequent year, the member who has been longest in office retires.

Provision was made for offering the retiring President of the old Board a sum of £4,500 by way of compensation, leaving it open to him to decline, with power of instituting proceedings to recover damages for wrongful removal from office. [The President has since retired, and is now one of the directors elected by the shareholders.]

The remuneration of the new Chairman and directors is £2,000 per annum, which they divide amongst themselves, in shares fixed by resolution of the Board.

There are sundry provisions as to the voting at meetings, and a carefully limited power of veto in respect of resolutions passed by shareholders, under certain circumstances, is given.

Amongst other various matters provided for, it may be mentioned that the Governor in Council may appoint an Assistant Auditor. The Chief Auditor is given the right to attend meetings of the Board, and empowered to suspend the operation of any act or proceedings until the Board has had an opportunity of considering the same at a future meeting.

SAVINGS BANKS.

The number of post-offices open for the transaction of savings-bank business at the end of 1899 was 426.

There were 41,362 new accounts opened in the year, and 28,284 accounts were closed. The total number of open accounts at the end of 1899 was 183,046.

The deposits received during the year amounted to £3,644,980 9s. 10d., and the withdrawals to £3,417,298 19s. 8d., the excess of deposits over withdrawals having thus been £227,681 10s. 2d. The total sum standing at credit of all accounts on the 31st December, 1899, was £5,320,370 14s. 10d., which gave an average of £29 1s. 4d. to the credit of each open account.

The following were the securities, &c., standing in the name of the Postmaster-General on account of the Post-Office Savings-Bank Fund on the 31st December, 1899:—

Description of Securities, &c.	Nominal Value.			Value at Cost Price.		
	£	s.	d.	£	s.	d.
"Aid to Public Works and Land Settlement Act, 1896," Debentures at 3½ per cent. ..	250,000	0	0	250,000	0	0
"Aid to Public Works and Land Settlement Act, 1899," Debentures at 3½ per cent. ..	125,000	0	0	125,000	0	0
"Consolidated Loan Act, 1867," Debentures, 4 per cent.	13,000	0	0	12,480	0	0
"Consolidated Stock Act, 1884,' Debentures, 3½ per cent.	54,300	0	0	54,300	0	0
"Defence and other Purposes Loan Act, 1870," Debentures, 4 per cent.	75,000	0	0	72,000	0	0
"Defence and other Purposes Loan Act, 1870," Debentures, 4½ per cent.	8,100	0	0	8,100	0	0
District Railways Purchasing Acts, 1885–86, Debentures, 4 per cent.	42,000	0	0	36,076	17	8
District Railways Purchasing Acts, 1885–86, Scrip, 4 per cent.	34,100	0	0	34,100	0	0
Dunedin Garrison Hall Debentures, 5 per cent.	6,000	0	0	6,000	0	0
"General Purposes Loan Act, 1873," Debentures, 4 per cent.	5,200	0	0	4,342	0	0

Description of Securities, &c.	Nominal Value.			Value at Cost Price.		
	£	s.	d.	£	s.	d.
"Government Loans to Local Bodies Act, 1886," Debentures, 3½ per cent.	312,500	0	0	312,500	0	0
Greymouth Harbour Board Debentures, 4 per cent.	100,000	0	0	100,000	0	0
Hamilton Borough Debentures, 5½ per cent...	3,000	0	0	3,000	0	0
Hokitika Harbour Board Debentures, 5 per cent.	10,000	0	0	10,000	0	0
"Immigration and Public Works Loan Act, 1870," Debentures, 4 per cent.	174,200	0	0	167,272	0	0
"Immigration and Public Works Loan Act, 1870," Debentures, 4½ per cent. ..	20,900	0	0	20,527	10	0
"Immigration and Public Works Loan Act, 1870," Debentures, 4 per cent. (Imperial guaranteed)	400,000	0	0	400,000	0	0
Inscribed Stock, 3 per cent.	1,764,940	0	0	1,764,140	0	0
Land for Settlements Acts, 1894, 1897, 1899, Debentures, 3½ per cent.	763,066	0	0	763,066	0	0
"Lands Improvement and Native Lands Acquisition Act, 1894," Debentures, 4 per cent.	264,000	0	0	264,000	0	0
"Lands Improvement and Native Lands Acquisition Act, 1894," Debentures, 3½ per cent.	35,000	0	0	35,000	0	0
North Rakaia River Board Debentures, 5 per cent.	1,000	0	0	1,000	0	0
Oamaru Borough Consolidated Loan 1893 Debentures, 5 per cent.	13,800	0	0	13,800	0	0
Oamaru Harbour Bonds, 5½ per cent. ..	32,000	0	0	32,000	0	0
Patea Harbour Board Debentures, 4½ per cent.	13,000	0	0	13,000	0	0
Thames Borough Debentures, 6 per cent. ..	6,500	0	0	6,500	0	0
Thames Harbour Board Debentures, 4 per cent.	10,000	0	0	10,000	0	0
"Public Revenues Act, 1893" (Treasury Bills), 3½ per cent.	379,200	0	0	379,200	0	0
Westport Harbour Board Debentures, 4 per cent.	439,500	0	0	439,500	0	0
Totals	5,355,306	0	0	5,336,904	7	8

There are six* savings-banks in the colony not connected with the Post Office. The total amount deposited in them in 1899 was £547,253 3s. 11d., of which the deposits by Maoris comprised £53. The withdrawals reached the sum of £545,586 2s. 8d., or less than the total deposits by £1,667 1s. 3d. The total amount to the credit of the depositors at the end of the year was £807,926 13s. 8d., of which sum £86 6s. 10d. belonged to Maoris.

SUMMARY OF ALL DEPOSITS.

If the total deposits at the end of the year be assumed to be equal to the average for the last quarter, then it may be affirmed that, exclusive of Government moneys, the deposits in the several banks of issue and in the two classes of savings-banks amounted at the end of 1899 to £19,929,116. In addition, there are the deposits

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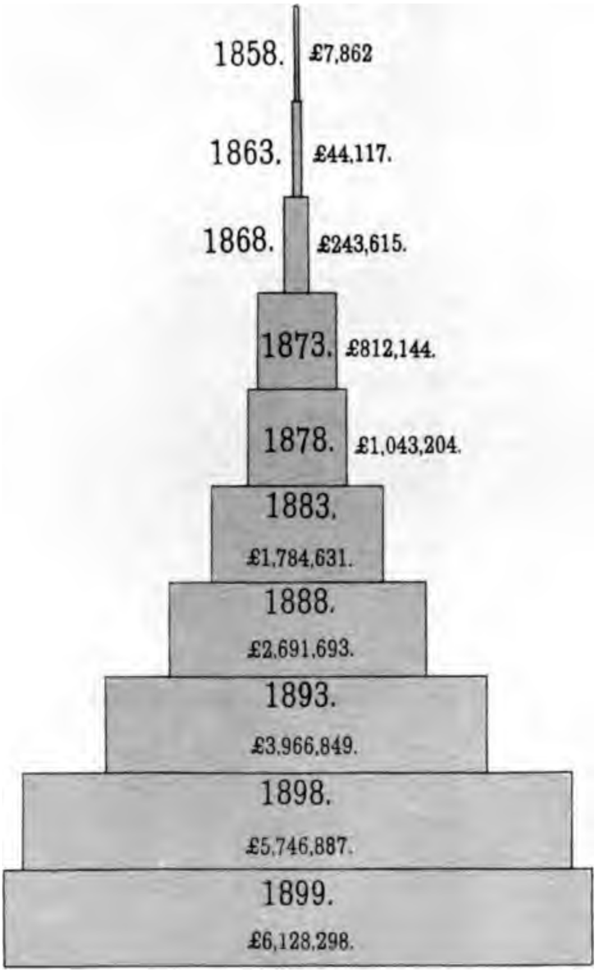
* One in liquidation since 16th August, 1899.

SAVINGS-BANKS (POST-OFFICE AND PRIVATE).

AMOUNTS TO CREDIT OF DEPOSITORS ON 31ST DECEMBER, 1858-1899.



with building societies, which in 1898 were £209,489, and it is known that there were also deposits with financial companies, of which no particulars have been supplied to the department. The known deposits reach an average of £26 17s. per head of the population, exclusive of Maoris.

BUILDING SOCIETIES.

There were 70 registered building societies in operation in the colony at the end of 1898. Of these, 31 were terminable societies, the rest were permanent.

The total receipts by these societies during their financial year were £581,070, of which deposits comprised £194,426.

The assets at the end of the year were valued at £993,051. The liabilities were: To shareholders, reserve fund, &c., £770,102; to depositors, £209,489; and to bankers and other creditors, £13,461.

JOINT-STOCK COMPANIES.

During the year ended 31st December, 1899, 260 joint-stock companies, with a total nominal capital of £2,666,442, were registered under the provisions of "The Companies Act, 1882."

FRIENDLY SOCIETIES.

The Registrar of Friendly Societies received returns for the year 1898 from 410 lodges, courts, tents, &c., of various friendly societies throughout the colony. The number of members at the end of 1898 was 35,501.

The total value of the assets of these societies was £678,746, equivalent to £19 2s. 4d. per member. Of the total assets, the value of the sick and funeral benefit funds was £625,474.

The receipts during the year on account of the sick and funeral funds amounted to £81,105, and the expenditure to £58,626, of which the sick-pay to members reached the sum of £38,553. In addition to the sick-pay, the sum of £32,544 was paid out of the medical and management expenses fund for attendance given and medicine supplied to the members and their families.

MORTGAGES.

In a return to an order of the House of Representatives last session it is stated that, during the year ended 31st March, 1899, mortgages to the value of £6,710,427 were registered in the several land registration districts of the colony, while the monetary value of those paid off amounted to £5,273,338. Compared with a similar return for the year 1897–98, the mortgages registered show an increase of £8,346, the total amount for the earlier year having been £6,702,081.

The total amounts represented in the mortgages registered and paid off in each registration district during 1897–98 and 1898–99 were :—

District.	1897-98. Mortgages Registered. £	1897-98. Mortgages Paid off. £	1898-99. Mortgages Registered. £	1898-99. Mortgages Paid-off. £
Auckland ..	845,674	718,152	845,011	473,837
Gisborne ..	388,530	182,902	127,115	149,909
Taranaki ..	486,852	306,974	518,066	341,032
Hawke's Bay ..	634,842	503,076	621,703	737,268
Wellington ..	1,768,207	1,094,234	1,880,281	1,056,188
Marlborough ..	67,129	49,882	127,277	105,137
Nelson ..	181,564	124,004	216,626	261,708
Westland ..	20,570	8,045	21,067	16,970
Canterbury ..	1,359,140	1,615,641	1,455,543	1,308,961
Otago ..	519,641	648,310	598,928	540,207
Southland ..	429,932	265,378	298,810	282,121
Totals ..	£6,702,081	£5,516,598	£6,710,427	£5,273,338

Classified according to the various rates of interest, the amounts in the mortgage deeds registered during the two years were :—

Year 1897-98. £		1898-99. £		Rate of Interest.
43,341	..	57,005	..	at 4 per cent or under.
994,703	..	1,493,913 (*e*)	..	at 4½ per cent.
179,294 (*a*)	..	127,491 (*f*)	..	at 4¾ per cent.
2,029,506	..	2,258,400	..	at 5 per cent.
451,525 (*b*)	..	395,879 (*g*)	..	at 5½ per cent.
823,930	..	832,308	..	at 6 per cent.
237,126 (*c*)	..	147,906 (*h*)	..	at 6½ per cent.
363,854	..	261,485	..	at 7 per cent.
33,866 (*d*)	..	20,839 (*i*)	..	at 7½ per cent.
214,669	..	173,114	..	at 8 per cent.
75,750	..	85,178	..	at 8½ per cent. and over.
1,254,517	..	856,909	..	at rates not specified.
£6,702,081		£6,710,427		

(*a*.) Including £1,250 at4⅘ per cent. (*b*.) Including £13,210 at 5¼ per cent., £1,800 at 5⅓ per cent., and £1,715 at 5¾ per cent. (*c*.) Including £483 at 6¼ per cent., £900 at 6⅓ per cent., £150 at 6⅔ per cent., £900 at 6⅝ per cent., and £15,775 at 6¾ per cent. (*d*.) Including £6,000 at 7¼ per cent. (*e*.) Including £15,550 at 4¼ per cent. (*f*.) Including £13,500 at 4⅝ and £500 at 4⅓ per cent. (*g*.) Including £3,400 at 5⅛, £41,016 at 5¼, £1,800 at 5⅓, and £550 at 5¾ per cent. (*h*.) Including £12,650 at 6¼, and £9,340 at 6¾ per cent. (*i*.) Including £1,000 at 7¼ per cent.

Comparison of the foregoing with the amounts at the various rates of interest in the mortgages registered during 1895–96 shows the lowering of the rates that has taken place :—

Year 1895-96. £	
26,285	in small sums at less than 5 per cent.
833,226	at from 5 per cent. to 5¼ per cent.
732,764	at 5½ per cent.
116,600	at 5¾ per cent.
1,372,261	at from 6 per cent. to 6¼ per cent.
371,896	at from 6½ per cent. to 6¾ per cent.
599,542	at from 7 per cent. to 7¼ per cent.
111,651	at 7½ per cent.
382,348	at 8 per cent.
173,416	in small sums, at rates above 8 per cent.
853,801	at rates which are not specified.
£5,573,790	

The total amount shown in deeds as secured by mortgage under the Land Transfer Act on 31st March, 1899, was £33,035,337, as against £32,152,288 in March, 1898, and 31,112,921 in March, 1897; but in respect of some transactions the same money may be included more than once.

LIFE INSURANCE.

There were existing in the colony at the close of the year 1898 as many as 80,326 life insurance policies, an average of 109 in every 1,000 persons living. The gross amount represented by these policies was £20,706,439, an average of £257 15s. 7d. for each policy, and of £27 17s. 1d. for every European inhabitant of the colony at the end of the year.

The distribution of these policies shows that nearly one-half are held in the Government Life Insurance Department:—

Name of Office.	Number of Years of Business in the Colony.	New Zealand Business only.	
		Number of existing Policies at End of Year 1898.	Gross Amount insured by Policies at End of Year 1898.
			£
Australian Mutual Provident Society	37	24,376	6,855,531
Australian Widows' Fund Life Assurance Society (Limited)	1	277	88,931
Citizens' Life Assurance Company (Limited)	5	1,783	288,375
Colonial Mutual Life Assurance Society (Limited)	15	4,327	1,138,427
Equitable Life Assurance Society of the United States	14	730	310,106
Mutual Life Association of Australasia	22	4,552	1,186,270
National Mutual Life Association of Australasia (Limited)	19	6,247	1,463,713
New York Life Insurance Company	12	147	57,295
Scottish Metropolitan Life Assurance Company	2	39	13,050
Life Insurance Department of the New Zealand Government	29	37,848	9,304,741
Totals, December, 1898	..	80,326	£20,706,439
Totals, December, 1897	..	75,692	£19,723,970

The rate at which life insurance increased is evidenced by the difference between the amounts insured at the end of each of the two years 1897 and 1898, being a sum of £982,469, or 4·98 per cent. for a period in which the population increased by 1·98 per cent. only.

INDUSTRIAL LIFE ASSURANCE.

In addition to the ordinary life insurance transactions alluded to above, there were in 1898 two industrial life assurance offices doing business in New Zealand. The number of policies in existence and the gross amount insured by such policies at the end of the year were :—

Name of Office.	Number of Years of Business in the Colony.	New Zealand Business only.	
		Number of existing Policies at End of Year 1898.	Gross Amount insured by Policies at End of Year 1898.
			£
The Citizens' Life Assurance Company (Limited)	5	12,923	313,466
The Provident and Industrial Insurance Company of New Zealand	9	7,951	201,666
Totals, December, 1898 ..	..	20,874	£515,132
Totals, December, 1897 ..	..	20,708	£513,907

Here a rise of only £1,225, or 0·24 per cent., is shown to have taken place in twelve months.

"THE NEW ZEALAND ACCIDENT INSURANCE ACT, 1899."

By this statute the Commissioner of Life Insurance is given power to insure persons from accident, and specially employers against liability for accident to any person employed, besides generally doing the business of an insurer against accident.

The Act provides for capital for the accident insurance business by empowering the Governor in Council to raise by debentures or scrip, or by issue of inscribed stock, sums of money not exceeding £25,000 altogether. To redeem at maturity the securities issued in respect of capital raised there are provisions for a sinking fund.

The funds, assets, and liabilities of the Government Life Insurance Department belonging to its accident insurance branch are to be kept separately and distinct from the main life insurance business, and powers are vested in the Governor to make regulations in regard to tables fixing rates of premiums, and other details, for the conduct of accident insurance.

THE PUBLIC TRUST OFFICE.

This institution is described in the Year-book for 1898. The [illegible] of estates in it increased from 1,678 in 1890 to 2,667 in

1900, while the total value rose from £1,240,097 to £2,192,594 during the same period.

Classifying the business as on the 31st March, 1900, the results are :—

	Number of Estates.	Value of Estates.
		£
Wills and trusts (including sinking funds accounts)	576	933,567
Intestate estates	903	136,697
Real estates	75	8,313
Lunatic estates	555	113,525
Native reserves	110	363,076
West Coast Settlement Reserves ..	293	622,604
Unclaimed lands	155	14,812
Total	2,667	£2,192,594

The capital funds of the Public Trust Office invested amounted, on the 31st March, 1900, to £1,028,987. The investments are as follow :—

	£
New Zealand Government securities	137,778
Local bodies' debentures	19,439
Mortgages of freehold property	871,770
Total	£1,028,987

PRIVATE WEALTH.

The number and value of estates of deceased persons finally certified, on which duty was paid during the years 1897, 1898, and 1899 are shown, classified according to amount :—

Value of Estates.	1897.		1898.		1899.	
	Number of Estates.	Aggregate Value on which Duty was Paid.	Number of Estates.	Aggregate Value on which Duty was Paid.	Number of Estates.	Aggregate Value on which Duty was Paid.
£ £		£		£		£
Under 500 ..	672	126,146	714	147,280	794	150,091
500 to 1,000 ..	171	120,438	219	157,709	224	161,220
1,000 „ 2,000 ..	108	153,708	151	214,650	126	180,909
2,000 „ 3,000 ..	39	95,904	76	186,749	57	138,204
3,000 „ 4,000 ..	39	132,793	31	106,097	30	105,077
4,000 „ 5,000 ..	19	85,781	24	107,117	18	81,967
5,000 „ 7,500 ..	32	197,396	20	121,253	34	209,185
7,500 „ 10,000 ..	13	114,477	12	101,264	13	110,765
10,000 „ 15,000 ..	13	156,020	21	254,756	10	126,661
15,000 „ 20,000 ..	12	199,686	6	100,395	9	155,058
20,000 and over ..	10	598,392	13	784,116	12	601,338
Totals ..	1,128	1,980,741	1,287	2,281,386	1,327	2,020,475

The number of estates admitted to probate, and the number of adult deaths in each year, 1895 to 1899, are given, and it will be seen that no less than 28 out of every 100 adults who died during the year 1899 left property subject to estate duty.

Year.	Number of Estates.	Number of Adult Deaths.	Proportion per Cent. of Adults who died leaving Property on which Duty paid.
1895	767	4,033	19·02
1896	855	3,944	21·68
1897	1,128	4,258	26·49
1898	1,287	4,696	27·41
1899	1,327	4,719	28·12

On these data an attempt has been made to compute roughly the total value of private property in the colony. This method of estimating the private wealth of a people by means of the probate returns may not be strictly accurate, and is indeed strongly objected to by some statisticians, but it was nevertheless selected by the late Professor Mainwaring Brown as the best and most trustworthy plan.

Calculations of the wealth of the living on the proportional basis of amounts left by the dead have not been considered satisfactory in some of the Australian colonies, but in New Zealand, where wealth is more evenly distributed, the results have proved fairly comparable year by year, and the method can be used with a greater degree of confidence. Dividing the aggregate amount admitted to probate during a series of years by the number of *deaths* occurring within the same period, the average value of property left by each person dying is obtained. On the assumption that the average wealth owned by each person living is equal to that left by each person dying, the total aggregate private wealth may readily be found. For a calculation of this kind it is necessary to take the average results for a series of years, as any inference drawn from the figures of a single year would be untrustworthy; for an increase in the death-rate must necessarily give a corresponding decrease in the estimated wealth, unless the value of estates admitted to probate maintains year by year the same ratio to the number of deaths. An epidemic among young children who have no property to leave would unduly lower the average; while, on the other hand, the deaths of a few wealthy persons would raise it abnormally. It must also be remembered, when using these figures for comparative purposes, that the lowness of the death-rate in New Zealand is in great measure due to the small mortality among infants. By putting the figures for several years together, and taking the average for the term, results may be arrived at, thus:—

Years, inclusive.	Amount sworn to.	Total Number of Deaths.	Average Amount left by each Person.	Average Number of Persons living.	Average Total Wealth for each Year of the Period.
	£		£ s. d.		£
1895–99	10,013,264	34,814	287 12 5	721,423	207,497,126

It is manifest, however, that this average does not exhibit with sufficient accuracy the actual *present* amount of wealth. If the average amount per head were the same at the end of the year 1899 as for the period 1895–99—viz., £287·622—then the total wealth possessed by the 756,505 persons in the colony on the 31st December of that year would be £217,587,481.

These figures, however, fall short of the full amount of private wealth, as the values sworn to do not include those estates on which no stamp duty is payable—viz., land and goods passing to the husband or wife of the deceased, and a great number of properties under £100. The aggregate value of such estates must be considerable, and should give a substantial increase to the average amount per head, and therefore to the total wealth. But, on the other hand, only 38 per cent. of the deaths in 1899 were of persons under twenty years of age, and the census of 1896 showed that 48 per cent. of the population living at that time were under twenty: so that, in assuming the average wealth per head of the living to be the same as the average left by each one dying, the aggregate is somewhat unduly swelled, because, as a rule, persons under twenty have little or no property.

The estimated private wealth for each of ten years is shown by the following figures:—

Year.	Amount. £	Average per Head. £
1890	142,631,461	228
1891	145,780,502	230
1892	152,065,087	236
1893	156,058,273	232
1894	154,715,821	225
1895	152,918,021	219
1896	170,007,843	238
1897	183,781,780	252
1898	201,154,323	271
1899	217,587,481*	288

The Government Statistician of New South Wales estimated the private wealth of the seven colonies of Australasia for the year 1890 at £1,169,434,000.

An attempt to arrive at the value of the public property in the colony led to the following particulars being ascertained:—

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* N.B.—A test has been applied to these figures with a view of ascertaining their reliability. The Valuer-General returned £138,591,347 sterling as the value of all land and improvements in the colony, not including Government railways in 1898. From this amount, deducting £22,934,779 and £4,551,327 on account of public property, as per table on next page, besides £7,007,522 for Native lands with improvements, leaves, say, £104,000,000 sterling for land and improvements privately owned. Take this sum (£104,000,000) from the £217,000,000 of private wealth as here shown, and there remains £113,000,000 sterling for personal estate, the actual amount as returned by the Property-tax Commissioner for the year 1888 having been £85,000,000.

PUBLIC PROPERTY, 1898.

		£
Public property—*i.e.*, land and improvements not owned by individuals, exclusive of Government railways (figures supplied by the Valuer-General) :—		
Crown lands	£12,986,848	
Local authorities' lands	4,704,442	
Educational lands	2,969,438	
Church and other lands	2,274,051	
		22,934,779
Government railways, open and under construction (figures from Public Works Department)		16,762,455
Other public works—viz., telegraphs, lighthouses, harbours, and water-supply on goldfields		4,551,327
Total public property*		£44,248,561

This amount of £44,248,561, with the sum of £217,587,481 (see note (*) to table) previously shown as the private wealth, estimated from probate returns, gives a total of £261,836,042. If to this be added £7,007,522, the value of Native lands with their improvements (as stated by the Valuer-General), a final total of £268,843,564 is reached.

So much of this sum as represents private wealth may be considered as *net* wealth, because stamp duty is paid after subtracting liabilities on estates. But the debt of the General Government and that of the local bodies (so far as raised abroad) must be deducted. These amounts were, in the year 1899, £43,115,089 and £5,485,100 respectively. Allowing for these, it is found that the colony had in 1899 at least £220,243,375 value of public and private wealth. No doubt there is more, but information as to public wealth other than property owned by the Government is not procurable.

EARNINGS AND INCOME.

The amount of the aggregate annual earnings of the people of New Zealand is given in the Year-book of 1897 (p. 283). To arrive at this estimate the method adopted was to allot to each person the probable income earned in respect of the occupation set down against his or her name in the household schedules collected at the census of 12th April, 1896. Exception may no doubt be taken to the plan of basing a calculation on a series of arbitrary assumptions, but there is precedent for such a course. The results of the calculation were given without any guarantee of accuracy, similar figures having been called for in the past. Indeed it is important to make clear that the figures must only be considered as put forward with the greatest diffidence, and rather of necessity than otherwise. They may indeed give a fair idea of the facts, but the responsibility of using them for any particular purpose is not accepted by the Registrar-General.

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* Of the value of public property other than that enumerated above there is no account available.

WAGES.

The aggregate of wages paid in the colony for the year 1896, as given in the Year-book of 1897 (p. 284), was arrived at by assigning to each wage-earner the probable annual income each would derive from the profession or occupation followed. As in the case of income, the calculations made were put forward merely by way of an attempt to get as closely as possible to the facts, and because asked for; but no assurance whatever can be given as to the exactness of the conclusions stated, and the Registrar-General does not accept any responsibility in regard to their use.

COST OF LIVING.

An estimate was made in 1894 of the cost of living in New Zealand, including, besides what was spent on necessaries, the additional outlay on what may be termed luxuries, and on things of occasional necessity. The rate arrived at per head of population was £35 6s. 1d. per annum for that year. Fuller particulars are given in former issues of the Year-book.

The average income per head previously referred to was believed to be from £37 12s. to £44 per annum.

Mr. Mulhall, in his "Dictionary of Statistics," gives the average expenditure per head of population for various countries specified as follows:—

Country.	Average Annual Expenditure per Head.		
	£	s.	d.
United Kingdom	29	14	9
France	23	19	4
Germany	20	3	4
Russia	10	1	11
Austria	14	4	9
Italy	11	11	0
Spain	15	12	6
Portugal	11	5	6
Sweden	20	8	4
Norway	19	0	0
Denmark	28	11	5
Holland	20	17	4
Belgium	25	8	2
Switzerland	18	0	0
United States	32	16	2
Canada	23	6	2
Australia	33	10	3
Argentina	27	9	1

The estimate for Australasia, as made in 1894 by Mr. Coghlan, then Government Statistician of New South Wales, was as high as £43 12s. 10d. per head.

ANNUAL CONSUMPTION OF FOOD, STIMULANTS, ETC.

The quantities used per head of population in New Zealand of some of the main articles of consumption will be found in the Year-book for 1898. The figures are averages for five years.

PRICES AND WAGES.

The average prices of produce, live-stock, provisions, &c., in each provincial district are given for the year 1899 in tabular form on pages 311 and 312. While the variations for the different districts are such as to render it in most cases inadvisable to show averages for the colony, this has nevertheless been done for the staples of food, *i.e.*, bread, meat, and milk, also for tea and sugar, which may almost be called necessaries. Averages for the colony, taken out for the years 1878, 1888, 1898, and 1899, indicate generally a decline in prices with the advance of time. In striking these, prices on the goldfields have not been taken into account:—

—		1878.		1888.		1898.		1899.	
		s.	d.	s.	d.	s.	d.	s.	d.
Bread	per lb.	0	2	0	1¾	0	1½	0	1¼
Beef	per lb.	0	5½	0	3¾	0	3¾	0	4
Mutton	per lb.	0	3¾	0	3¼	0	3	0	3¼
Sugar	per lb.	0	5	0	3¼	0	2¾	0	2¾
Tea	per lb.	2	9	2	3½	1	10	1	11
Butter (fresh) ..	per lb.	1	4	0	9¼	0	9¾	0	10
Cheese (colonial) ..	per lb.	0	10	0	6	0	5½	0	5½
Milk	per quart.	0	4½	0	3¼	0	3	0	

RATES OF WAGES.

The average rates of wages paid in 1899 in each provincial district for agricultural, pastoral, artisan, and servants' labour are given on pages 313 to 316.

Average Prices of Produce, Live-stock, Provisions, etc., in each Provincial District of New Zealand during the Year 1899.

Produce, &c.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
I. Agricultural Produce.									
Wheat .. .. per bushel (60lb.)	2/8 to 4/	3/3	3/3	2/4 to 2/9	2/	2/7	3/	2/6	2/3 to 3/6
Barley .. .. per bushel (47lb.)	2/3 to 3/	3/	2/9	2/3 to 3/	2/10	2/4	3/	3/	2/3 to 2/9
Oats .. .. per bushel (40lb.)	2/ to 2/8	2/6	2/6	2/ to 2/9	2/3	1/8	2/6	1/10	1/9 to 2/9
Maize .. .. per bushel (56lb.)	2/9 to 3/3	3/6	3/3	2/6 to 3/9	..	2/8	4/	4/	2/6 to 3/3
Bran .. .. per bushel (20lb.)	8d. to 1/6	1/	1/	9d. to 1/	1/	10d.	10d.	10d.	9d.
Hay .. .. per ton ..	£3 to £3/10	£4	£4	£2/10 to £5	£3	£2/10	..	£3/6	£3 to £4
II. Flour and Bread.									
Flour, wholesale .. per ton of 2,000lb.	£7/10 to £8/10	£7/16/6	£8	£7/10 to £8	£7	£7/10	£7/10	£7	130/ to 250/
Flour, retail .. per bag of 50lb...	4/3 to 4/9	5/6	4/9	4/3 to 5/	4/	4/6	4/6	3/10½	4/ to 7/6
Bread .. .. per 4lb. loaf ..	5d. to 6d	5½d.	6d.	4d. to 6d.	6d.	5d.	6d.	4½d.	4d. to 7d.
III. Live-stock and Meat.									
Horses, draught .. per head ..	£22 to £35	£25 to £30	£15 to £50	£27/10 to £45	£25 to £30	£26	£35	£25	£30 to £45
Horses, saddle and harness .. per head ..	£7 to £15	£12 to £20	£5 to £15	£7/10 to £20	£10 to £15	£14	£15 to £30	£10	£7 to £20
Cattle, fat .. per head ..	£5/10 to £7/10	£4/17/6	£8	£5/10 to £7	£5 to £7	£4/10	£9/10	£7	£7 to £8
Cattle, milch cows .. per head ..	£4 to £7	£4	£7	£4 to £6	£6 to £7	£5	£6	£5 to £10	£4/10 to £8
Sheep, fat.. .. per head ..	9/ to 10/	17/	7/	10/ to 14/	10/	9/	16/	14/	12/ to 18/
Lambs, fat .. per head ..	6/6 to 10/	13/	6/	8/ to 8/6	9/	8/	12/6	10/	10/ to 11/
Butchers' meat:—									
Beef .. .. per lb... ..	3½d. to 5d.	4d.	4d.	2½d. to 4d.	4d.	4d.	5d.	3d.	3d. to 6d.
Mutton .. .. per lb... ..	3½d. to 4½d.	4d.	3d.	2d. to 3d.	3d.	3½d.	5d.	2d.	3d. to 4d.
Veal .. .. per lb... ..	4d. to 5d.	3½d.	4d.	3d. to 4d.	5d.	4d.	6d.	2½d.	4d. to 5d.
Pork .. .. per lb... ..	5d.	5d.	6d.	4d. to 6d.	5d.	5d.	6d.	4d.	5d. to 6d.
Lamb .. .. per lb... ..	4d. to 5d.	3/6 per qr.	4½d.	5d. to 6d.	3½d.	5d.	6d.	4d.	3d. to 6d.
IV. Dairy Produce.									
Butter, fresh .. per lb... ..	10d. to 1/	1/	1/	9d. to 1/	1/	8d.	1/	9d.	7d. to 1/
Butter, salt .. per lb... ..	5d. to 9d.	10d.	7d.	6d. to 9d.	9d.	6d.	11d.	7d.	6d. to 1/
Cheese, colonial .. per lb... ..	4d. to 6d.	6d.	7d.	5d. to 6d.	7d.	7d.	7d.	4d.	4½d. to 8d.
Cheese, imported .. per lb... ..	8d. to 1/9	1/6	10d.	6d. to 8d.	9d.	1/3	1/	10d.	1/6
Milk .. .. per quart ..	2d. to 4d.	3d.	4d.	2d. to 4d.	4d.	4d.	5d.	3d.	2d. to 4d.

AVERAGE PRICES OF PRODUCE, LIVE-STOCK, PROVISIONS, ETC., IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1899—*continued.*

Produce, &c.		Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
V. FARM-YARD PRODUCE.										
Geese	per pair ..	5/ to 8/	6/6	6/	5/ to 8/	6/	6/	7/	6/6	5/ to 6/
Ducks	per pair ..	3/ to 5/	3/9	5/6	4/ to 4/9	5/	5/6	5/	4/6	4/ to 4/6
Fowls	per pair ..	3/ to 5/	3/	4/	3/ to 3/9	2/6	3/6	3/6	3/6	3/ to 3/6
Turkeys	per head ..	5/ to 7/	5/	7/	5/ to 7/6	4/6	6/	10/	6/	7/ to 10/
Bacon	per lb. ..	5½d. to 9d.	8½d.	8d.	6d. to 10d.	8½d.	6½d.	8d.	6d.	6d. to 9d.
Ham	per lb. ..	6½d. to 1/	9½d.	9d.	7d. to 1/	9d.	7½d.	9d.	8d.	7d. to 11d.
Eggs	per doz. ..	8d. to 1/	11d.	10d.	10d. to 1/	1/	10d.	1/3	9d.	9d. to 1/6
VI. GARDEN PRODUCE.										
Potatoes, wholesale ..	per ton ..	£3 to £6/10	£2/5	£4/10	£1 to £3	10/	£4	£10	7/6	£1 to £10
Potatoes, retail ..	per cwt. ..	3/6 to 8/	2/9	5/6	2/ to 6/	..	4/	12/	1/6	2/6 to 11/
Onions	per lb. ..	1d. to 3d.	3d.	2d.	1d. to 1½d.	1½d.	2d.	3d.	1d.	1d. to 3d.
Carrots	per doz. bnchs.	1/ to 1/6	1/3	1/6	10d. to 1/6	2/	2/	3/	1/	8d. to 2/
Turnips .. .	per doz. bnchs.	1/ to 1/6	1/3	1/6	10d. to 1/6	2/	2/	3/	9d.	8d. to 2/6
Cabbages	per doz. ..	1/6 to 2/	1/6	2/	1/6 to 2/	2/	2/	3/	9d.	8d. to 3/
VII. MISCELLANEOUS ARTICLES.										
Tea	per lb. ..	1/4 to 2/4	2/ to 2/4	2/	2/ to 2/3	2/6	1/10	2/	2/	1/3 to 2/6
Coffee	per lb. ..	1/8 to 2/1	2/	2/	1/6 to 2/	2/	1/8	2/	1/8	1/8 to 2/
Sugar	per lb. ..	2¾d. to 3d.	3d.	3d.	2½d. to 3d.	3d.	2½d.	3d.	2½d.	2½d. to 3d.
Rice	per lb. ..	3d.	3d.	3d.	3d.	4½d.	3d.	3d.	2½d.	2⅛d. to 3d.
Salt .. .	per lb. ..	¾d.	1d.	1d.	1d.	¾d.	1d.	1d.	1d.	¾d. to 2d.
Soap	per cwt. ..	16/ to 25/	27/6	16/	10/ to 21/	12/	18/	18/	8/	11/ to 24/
Candles	per lb. ..	6d. to 8d.	7½d.	9d.	6d. to 8d.	7d.	8d.	8d.	6d.	5d. to 9d.
Tobacco	per lb. ..	5/2 to 6/6	6/	6/	5/ to 5/6	5/6	5/6	5/6	5/	4/10 to 6/
Coal	per ton ..	15/ to 30/	30/ to 40/	36/	26/ to 40/	38/	34/	19/	36/	16/ to 25/
Firewood	per cord ..	14/ to 36/	20/	30/	14/ to 36/	27/	25/	26/	43/	15/ to 30/
VIII. BEER, WINE, SPIRITS.										
Beer, colonial ..	per hhd. ..	£4 to £4/10	£5	£4	£4 to £5	£4/4	£4/5	£4/5	£3/15	£3/15 to £4/10
Beer, English, bottled	per doz. qts. ..	13/ to 14/6	16/	14/6	13/ to 15/	14/	15/	18/	18/	12/ to 18/
Brandy	per gallon ..	21/ to 30/	35/	30/	26/ to 30/	27/	25/	25/	25/	21/ to 28/
Rum	per gallon ..	25/ to 30/	30/	24/	20/ to 27/	27/	22/	25/	25/	20/6 to 24/
Whisky	per gallon ..	25/6 to 30/	30/	30/	26/ to 30/	30/	26/	30/	24/6	22/ to 27/
Gin	per gallon ..	20/3 to 30/	25/	22/	20/ to 26/	20/	24/	22/6	22/6	20/ to 24/
Wine, Australian ..	per gallon ..	13/ to 18/	18/	14/	14/ to 18/	15/	15/	17/	21/	14/ to 18/
Wine, European ..	per gallon ..	16/ to 30/	20/	22/	17/ to 25/	17/6	18/	19/	26/	14/ to 20/

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1899.

Description of Labour.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield)
1. AGRICULTURAL LABOUR.									
Farm-labourers:									
With board, per week	15/ to 20/	15/ to 25/	25/	20/ to 25/	25/	20/	20/	15/ to 17/6	12/6 to 20/
Without board, per day	5/ to 7/	6/6	..	7/	..	6/	8/	5/ to 6/	8/
Ploughmen:									
With board, per week	15/ to 30/	25/	25/	20 / to 25/	25/	20/	20/	17/6 to 20/	12/6 to 30/
Without board, per day	6/ to 7/	7/6	..	7/	..	..	8/	5/	9/
Harvesters:									
With board, per week	20/ to 35/	40/ to 45/	25/	25/ to 30/	..	*	..	30/ to 40/	30/ to 40/
Without board, per day	5/ to 8/	9/	..	8/	..	*	..	8/ to 10/	10/
Men-cooks on farms:									
With board, per week	20/ to 30/	20/ to 25/	25/	20/ to 25/	20/	20/	..	20/ to 25/	20/ to 30/
Female farm-servants:									
With board, per week	8/ to 12/	10/ to 15/	12/ to 15/	10/ to 15/	10/	9/	10/	8/ to 13/	8/ to 14/
2. PASTORAL LABOUR.									
Shepherds, with board, per annum ..	£50 to £65	£78	£65	£52 to £75	22/6 per week	£60	..	£50 to £65	£50 to £65
Stockkeepers, with board, per annum..	£52	£50 to £80	£65	£52 to £60	22/6 per week	£50	20/per wk	£52 to £65	£52 to £65
Station-labourers, with board, per week	15/ to 20/	£52 to £60 per ann.	£65 per ann.	20/	20/	£45 per ann.	20/	£45 to £55 per ann.	15/ to 20/
Shearers, with board, per 100 sheep shorn	16/8 to 20/	20/	17/6	17/6 to 20/	18/6	17/6	20/	15/ to 16/8	15/ to 20/
Men-cooks on stations, with board, per week	20/ to 35/	20/ to 25/	£65 per ann.	20/ to 25/	20/	20/	..	20/ to 25/	20/ to 40/
3. ARTISAN LABOUR (per day, without board).									
Masons	8/6 to 12/	9/ to 11/	10/	10/ to 12/	10/	12/	12/	9/ to 11/	9/ to 12/
Plasterers	8/6 to 12/	11/	10/	10/ to 12/	9/	12/	12/	9/ to 10/6	10/ to 12/

* 6s. per day with board, or 5s. per acre.

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1899—*continued.*

Description of Labour.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marl-b'rough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
3. ARTISAN LABOUR (per day, without board)—*continued.*									
Bricklayers	8/6 to 12/	10/	12/	9/ to 12/	8/	12/	12/	10/ to 12/	10/ to 12/
Carpenters	8/6 to 10/	7/ to 10/	9/	9/4 to 10/	10/	9/6	11/	8/ to 10/6	8/ to 12/
Smiths	8/ to 10/	7/ to 10/	10/	8/ to 10/	8/	9/	11/	8/ to 9/	7/ to 10/
Wheelwrights	8/6 to 10/	8/ to 10/	10/	10/	9/	8/	11/	8/ to 10/6	7/ to 10/
Shipwrights	7/ to 9/	9/ to 10/	12/	10/ to 12/	..	10/	..	8/ to 11/	9/ to 12/
Plumbers	8/ to 10/	8/ to 9/	10/	8/ to 11/	10/	9/ to 10/	10/	8/ to 10/	8/ to 12/
Painters	6/6 to 8/	6/ to 8/	8/	8/ to 10/	9/	9/	9/	8/ to 9/	7/ to 12/
Saddlers	7/ to 8/	6/ to 8/	10/	8/ to 10/	8/	50/per wk.	10/	8/ to 9/	6/6 to 10/
Shoemakers	6/ to 8/	6/ to 8/	8/	6/ to 8/	8/	40/ to 50/	10/	7/ to 8/	8/ to 10/
Coopers	6/6	7/ to 9/	9/	8/ to 10/	12/	10/	12/	8/ to 10/	7/ to 10/
Watchmakers	7/6 to 9/	7/ to 9/	10/	7/ to 12/	8/	10/	10/	9/ to 12/	9/ to 10/
4. SERVANTS.									
Married couples without family, with board, per annum	£60 to £90	£78 to £100	£80	£70 to £75	£75	£75	£70	£65 to £70	£65 to £80
Married couples with family, with board, per annum	£56 to £80	..	£80	£50 to £60	..	£70	..	£52 to £60	£60 to £70
Grooms, with board, per week ..	10/ to 20/	15/ to 20/	£50 per annum	20/	20/	22/6	20/	20/ to 25/	15/ to 30/
Gardeners:									
With board, per week	13/ to 20/	17/6 to 25/	35/	20/ to 25/	20/	30/	..	22/6 to 25/	20/ to 30/
Without board, per day	5/ to 8/	7/6 to 9/	..	7/	..	7/	10/	6/6 to 7/	6/ to 8/
Cooks, with board, per week	15/ to 25/	15/ to 25/	12/	15/ to 21/	15/	15/	15/	12/6 to 15/	12/ to 35/
Laundresses, with board, per week ..	12/ to 20/	12/6 to 18/	10/	15/ to 20/	10/	4s. per day	20/	12/6 to 15/	12/ to 20/
General house servants, with board, per week	8/ to 12/	8/ to 20/	12/	10/ to 15/	5/	6/ to 12/	12/	10/ to 12/6	8/ to 15/
Housemaids, with board, per week ..	10/ to 14/	15/ to 20/	10/	10/ to 15/	5/	10/	12/	8/ to 10/	8/ to 15/
Nursemaids, with board, per week ..	5/ to 8/	5/ to 10/	5/	5/ to 10/	4/	4/ to 6/	8/	8/ to 10/	5/ to 10/

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1899—*continued.*

Description of Labour.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marl-b'rough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
4. SERVANTS—*continued.*									
Needlewomen:									
With board, per week	10/ to 15/	..	20/	20/	..	..	..	10/ to 15/	18/ to 30/
Without board, per day (lunch always provided)	3/	3/	3/	2/6 to 3/	5/	5/	3/6	3/ to 5/	2/6 to 6/
5. MISCELLANEOUS.									
General labourers, without board, per day	6/ to 8/	6/ to 8/	7/ to 8/	7/ to 8/	7/*	6/	9/	5/ to 7/6	5/6 to 9/
Stonebreakers without board, per cubic yard	2/3 to 3/6	3/3	3/	3/	..	1/6 to 3/6	..	3/ to 3/6	2/ to 4/
Seamen, with board, per month ..	£4 to £7	£5 to £6	£7/10	£4 to £4/10	£10	£7	£6	£4 to £5/10	£5 to £8/10
Miners, without board .. per day	8/ to 9/	8/	..	..	10/	8/	10/	9/ to 12/6	9/ to 13/
Engine-drivers, without board, per day	7/ to 9/	7/6 to 10/	11/	10/ to 12/	10/	6/	13/	10/6 to 12/6	9/ to 12/
Tailors, " per day	..	7/ to 10/	9/	9/ to 10/	7/	..	..	8/ to 10/	5/ to 10/
" " per week	35/	..	..	..	..	48/	50/	..	..
Tailoresses, " per day	..	5/ to 7/	4/	..	5/	..	..	4/ to 5/	3/6 to 6/
" " per week	14/ to 25/	..	..	17/6 to 25/	..	20/	20/	..	..
Dressmakers, " per day	..	2/6 to 5/	3/	..	5/	..	..	4/ to 5/	..
" " per week	13/ to 30/	..	..	17/6 to 20/	..	15/ to 30/	20/	..	12/ to 40/
Milliners, " per day	..	2/6 to 5/	5/	..	6/	..	..	5/ to 6/	..
" " per week	16/ to 30/	..	..	25/ to 50/	..	20/	20/	..	20/ to 30/

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* Co-operative labourers average about 6s. 6d. per day.

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1899—*continued.*

Description of Labour.		Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marl-b'rough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
5. MISCELLANEOUS—*continued.*										
Machinists, without board,	per day	..	3/ to 4/	5/	..	5/	..	..	4/ to 5/	..
„ „	per week	13/ to 25/	..	..	15/ to 30/	..	20/	15/	..	20/ to 40/
Storekeepers, „	per day	..	..	..	..	..	..	..	6/ to 8/	..
„ „	per week	50/	45/	50/ to 60/	42/ to 60/	42/	..	..	..	20/ to 70/
„ assistants, „	per day	..	..	..	..	..	..	..	5/ to 6/	..
„ „ „	per week	30/ to 36/	35/	20/ to 40/	30/ to 35/	25/	45/	..	..	20/ to 40/
Drapers' assistants, „	per day	..	..	..	..	..	..	..	6/ to 7/	..
„ „	per week	15/ to 50/	30/ to 45/	40/ to 80/	40/ to 60/	42/	50/	50/	..	44/ to 70/
Grocers' assistants, „	per day	..	..	..	..	..	..	..	6/ to 7/	..
„ „	per week	15/ to 36/	30/ to 40/	20/ to 40/	35/ to 42/	25/	40/	50/	..	25/ to 50/
Butchers, „	per day	..	5/ to 7/	..	..	..	..	..	6/ to 7/	..
„ „	per week	40/ to 50/	..	45/	35/ to 50/	30/	40/	40/	..	25/ to 50/
Bakers, „	per day	..	5/ to 8/	..	..	..	..	..	6/ to 8/	..
„ „	per week	40/ to 60/	..	45/ to 60/	25/ to 65/	42/	40/ to 50/	50/	..	40/ to 50/
Storemen, „	per day	..	..	..	..	..	..	..	6/ to 8/	..
„ „	per week	35/ to 40/	30/ to 40/	40/ to 50/	40/ to 50/	40/	45/	55/	..	40/ to 60/
Compositors, „	per day	..	..	10/	..	..	..	..	9/ to 10/6	..
„ „	per week	30/ to 60/	30/ to 45/	..	30/ to 60/	50/	55/	50/	..	35/ to 60/

LABOUR LEGISLATION.

The legislation passed by the General Assembly of New Zealand, and termed the "Labour Laws," comprises the undermentioned statutes and regulations made under various Acts:—

Bankruptcy: Sections 112 and 120 of Act of 1892.

"The Companies Acts Amendment Act, 1893": Sections 8 and 9.

"The Conspiracy Law Amendment Act, 1894."

"The Contractors' and Workmen's Lien Act, 1892."

"The Deaths by Accident Compensation Act, 1880," sections 2 and 4 to 10.

"The Employers' Liability Act, 1882," with amendments of 1891 and 1892.

"The Factories Act, 1894," and Amendment Act, 1896.

"The Employment of Boys or Girls without Payment Prevention Act, 1899" (read as part of "The Factories Act, 1894").

"The Industrial Conciliation and Arbitration Act, 1894," with amendments, 1895, 1896, and 1898.

The Inspection of Machinery Acts, 1882, 1883, and Amendment Acts of 1894 and 1896.

"The Kauri-gum Industry Act, 1898," and Amendment Act, 1899.

"The Labour Day Act, 1899."

Labour in Coal-mines: Extract from "The Coal-mines Act, 1891."

Labour in Coal-mines: Regulations for the management and administration of funds and moneys under section 69 of "The Coal-mines Act, 1891."

"The Licensing Act, 1881," section 13.

"The Master and Apprentice Act, 1865." Master and Apprentice: Extract from "The Criminal Code Act, 1893," sections 150 and 213.

"The Mining Act, 1898," and Amendment Act, 1899.

"The Servants' Registry Offices Act, 1895."

"The Shearers' Accommodation Act, 1898."

"The Shipping and Seamen's Act, 1877," with Amendment Acts of 1885, 1890, 1894, 1895, 1896, and 1899.

"The Shops and Shop-assistants Act, 1894," with Amendment Acts of 1895 and 1896.

"The Sunday Labour in Mines Prevention Act, 1897."

"The Trade-Union Act, 1878," and Amendment Act, 1896.

"The Truck Act, 1891."

"The Wages Protection Act, 1899" (forming part of and to be read with "The Truck Act, 1891").

"The Wages Attachment Act, 1895."

"The Workmen's Wages Act, 1893."

These Acts and regulations are published in pamphlet form by the Department of Labour, with general remarks by the Secretary, which are quoted as important:—

The labour laws have been passed in the effort to regulate certain conditions affecting employer and employed. Their scope embraces many difficult positions into which the exigencies of modern industrial life have forced those engaged in trades and handicrafts. The general tendency of these laws is to ameliorate the position of the worker by preventing social oppression through undue influences, or through unsatisfactory conditions of sanitation. It will undoubtedly be found that, with the advance of time, these laws are capable of improvement and amendment; but they have already done much to make the lives of operatives of fuller and more healthy growth, and their aim is to prevent the installation of abuses before such abuses attain formidable dimensions.

The manufacturing population in New Zealand differs from that in some other of the Australasian Colonies by its wide dispersion. The capital city has hitherto been unable to draw to itself the industrial ability of the other provincial centres; and not only do Auckland, Christchurch, and Dunedin vie with Wellington as centres of population, but also as *nuclei* of commercial activity. In the second-class towns, such as Nelson, Napier, Invercargill, &c., many important works are being carried on, while even in the villages and rural districts the progress of new settlement necessitates the manufacture of articles which in older communities are produced in specialised localities. Men scattered widely at the numerous occupations of colonial country life, shearing, harvesting, bush-felling, road-making, or sailing coastal vessels, &c., require legal protection against the dangers and disabilities to which their callings expose them. This general dispersion of industry necessitates not only a wide system of supervision, but legislative measures of a peculiar character, at once sufficiently elastic to comprehend many varieties of function, and yet rigid to crush any apparent abuse.

The most important of these laws, in its general significance, is that dealing with compulsory arbitration in labour disputes. "The Industrial Conciliation and Arbitration Act, 1894" (with its amending Act of 1895), exists for the purpose of encouraging industrial association, and to facilitate the settlement of trade difficulties. Societies consisting of five or more employers, or of seven or more workers, may be registered and become subject to the jurisdiction of the Board and Court appointed by the Act. Any such society may bring a disputed case before the Board of Conciliation appointed for that district, and, if the Board fails to effect a settlement, the dispute may be referred to the Court of Arbitration, whose award may be enforced in the same manner as an award of the Supreme Court. The amount, however, for which such an award may be enforced against an association is limited to £500. [There are also Amendment Acts of 1896 and 1898.]

"The Factories Act, 1894," is a consolidation of previous legislation, with some important additions. New Zealand has been divided into factory districts under the charge of a Chief Inspector and 150 local Inspectors. As a "factory" or "work-room" includes any place in which two or more persons are engaged in working for hire or reward in any handicraft, there are few operatives who do not come within the scope of the Act. Children under fourteen years of age are not allowed to be employed, and the hours of labour, holidays, &c., of women and youths under sixteen are strictly regulated. Good ventilation, sanitary accommodation, and general cleanliness of buildings are points dwelt upon; while machinery has to be properly guarded, fire-escapes provided, and dangerous occupations especially classified. In order to assist the system of free general education which prevails in the colony, young persons are not allowed to work in factories till they have passed the Fourth Standard of the State schools, or an equivalent examination. To prevent the introduction of "sweating" into our commercial centres, articles made, or partly made, in private dwellings, or unregistered workshops, have to be labelled when offered for sale, so that goods so manufactured (often in unsanitary premises) may not be placed in the market in competition with work done in properly inspected factories. Any person removing such labels is liable to a heavy fine. The Factory Inspectors also exercise supervision over the sleeping accommodation provided for shearers in country districts. As the sheep-runs and farms are widely scattered, sometimes in the rough and remote back-country, this part of the work of inspection is no easy task. A woman Inspector of Factories also gives her assistance to the duties of the department, travelling from place to place, and particularly looking into the condition of the operative women and girls. [There is also an Amendment Act of 1896.]

The duration of the hours of business in shops is limited by "The Shops and Shop-assistants Act, 1894," and "The Shops and Shop-assistants Act Amendment Act, 1895." These provide for the closing of all shops in towns and boroughs for one afternoon half-holiday in each week. A few shops, such as those of chemists, fruiterers, eating-house keepers, &c., are exempted from the general closing on account of their convenience to the public; but assistants in such establishments, in the bars of hotels, and in country stores, must have a half-holiday on some day of the week. Very small shops carried on by Europeans without paid assistants are also exempt from closing on the general half-holiday, but must close on one afternoon in each week. The hours of work for women and young persons are defined; sitting accommodation must be provided, and precautions as to the necessary time for meals, sanitary accommodation, &c., are enforced; the Act also enumerates the working-hours, holidays, &c., of clerks employed in banks, mercantile offices, &c. [There is also an Amendment Act of 1896.]

"The Employers' Liability Act, 1882," added to and amended in 1891 and 1892, is designed to protect workmen from negligence on the part of employers, by defining under what circumstances compensation for injury or death may be recoverable. The Act covers all employments except that of domestic servant, and does not allow of any "contracting out" by agreement on the part of employer and employed. Another Act of this character has regard to the payment of workmen's wages, and states that if a workman shall demand payment of wages twenty-four hours or more after they are due, and the contractor does not pay such wages, the workman may legally attach all moneys due to the contractor by the employer until such wages are paid. "The Truck Act, 1891," requires that payment of wages shall not be made in goods or "truck," but in money, any contra account notwithstanding; but there are a few exemptions, such as for advances for food, tools, &c., to men engaged in felling bush. In order to minimise the number of cases wherein fraudulent or unfortunate contractors victimised their labourers, "The Contractors' and Workmen's Lien Act 1892," was brought into existence. This entitles a person who has done work upon any land, building, or chattel to a lien upon such property. The lien is only to be exercised under certain restrictions, and for a limited amount, but it gives priority of claim for wages against other service, and enables legal proceedings for recovery to be taken before the attached property can be disposed of or alienated.

"The Servants' Registry Offices Act, 1895," regulates the licensing of registry offices for domestic or farm servants. It prevents friendless or uneducated people from becoming the prey of unscrupulous persons, who formerly collected fees by duping the applicants for situations. The registry-office keepers have to pay a licensing fee to the Government, and to present a certificate of good character when applying for a license. Proper ledgers and books open to inspection must be provided, and the lending or hiring of licenses is not permitted. Registry-office keepers are not allowed to keep lodging-houses for servants, or have any interest in such houses.

There are sundry Acts for the supervision of shipping, and the protection of sailors and passengers. They relate to the appointment of pilots and ships' officers; the engagement and discharge of sailors; the sanitation, ventilation, and overloading of vessels; and the number of duly rated hands engaged in proportion to tonnage. They endeavour to prevent injustice to the sailor as to advance-notes, or payments in foreign money, and also specify penalties to be inflicted for desertion, disobedience, &c.

Combinations or associations of persons for regulating the relations between masters and masters, or masters and workmen, or workmen and workmen, are directed by "The Trade Union Act, 1878." In this Act the different statutes which do not apply to trade-unions (such as the Joint Stock Act, the Friendly Societies Act, &c.) are enumerated, and the manner in which such societies may register, hold property, &c., is set out, together with the necessary provisions as to returns, penalties, &c. [An Amendment Act was passed in 1896, altering the age of membership.] "The Conspiracy Law Amendment Act, 1894," permits any combination of persons in furtherance of a trade dispute, provided that any act performed by such combination or society would not be unlawful if done by one person. Such action must not include riot, sedition, or crime against the State.

"The Wages Attachment Act, 1895," prevents wages below £2 a week being attached for debt. It does not interfere with any workman being sued for debt in the ordinary course, but prevents a grasping creditor from stepping in before others and seizing wages in advance before they are earned. [There is also "The Wages Protection Act, 1899," which has to be read with "The Truck Act, 1891," previously alluded to.]

"The Master and Apprentice Act, 1865," applies mainly to the indenturing of apprentices by the State, such apprentices being children of destitute parents. In other respects the law of England is held to be the law governing the relations between masters and apprentices in this colony; but special sections of the Act apply to the punishment of apprentices for absenting themselves from duty, and to the fine on a master for neglecting or ill-using his apprentice.

"The Mining Act, 1898," consolidates and repeals all statutes of a similar nature, and includes various amendments suggested by the Conference of Wardens of goldfields, and by mining associations. The mining legislation refers to labour in any kind of mine, and deals with the position of tributers and wages-men, the examination for certificates for mine-managers, &c., provision for ventilation, precautions against accident by blasting, &c. [There is an Amendment Act of 1899.]

In or about coal-mines women and boys are not allowed to be engaged. There is provision for the appointment of inspectors, mine-managers, engine-drivers, &c., and rules are furnished as to the ages and working-hours of those employed in attending engines, machinery, winding-gear, &c. The ventilation of mines is provided for, and the necessary safeguards imposed as to blasting operations, working in foul air, protecting lights, &c. There are regulations for the management and administration of funds and moneys, which relate chiefly to the withdrawal of moneys from the Sick and Accident Fund, and returns demanded from trustees of the fund.

There is also "The Deaths by Accident Compensation Act, 1880."

CO-OPERATIVE PUBLIC WORKS.

Remarks on the co-operative system of constructing public works were given in a special article in the Year-book of 1894. The numbers of workmen employed in this manner under Government departments during the financial year 1899–1900 were :—

		Lands and Survey Department.	Public Works Department.	State Farm, Levin.	Total.
April,	1899 ..	1,458	1,184	24(a)	2,666
May,	" ..	1,546	1,307	23(b)	2,876
June,	" ..	1,851	1,333	23(b)	3,207
July,	" ..	1,979	1,162	18(a)	3,159
August,	" ..	2,144	1,177	14(a)	3,335
September,	" ..	2,173	1,161	14(b)	3,348
October,	" ..	2,048	1,177	15(b)	3,240
November,	" ..	1,961	1,265	15(b)	3,241
December,	" ..	1,847	1,320	16(b)	3,183
January,	1900 ..	1,808	1,267	18(b)	3,093
February,	" ..	1,627	1,325	15(a)	2,967
March,	" ..	1,464	1,245	15(a)	2,724

(a) Also nine families ; (b) also ten families.

The average number of men employed in each year was as follows :—

Year.	Lands and Survey Department.	Public Works Department.	Total.
1891–92	261	527	788
1892–93	280	842	1,122
1893–94	933	1,015	1,948
1894–95	1,103	962	2,065
1895–96	1,572	764	2,336
1896–97	1,459	854	2,313
1897–98	1,552	890	2,442
1898–99	1,613	1,194	2,807
1899–1900	1,825	1,243	3,068
Gross totals	10,598	8,291	18,889
Average ..	1,178	921	2,099

LABOUR DEPARTMENT.

The total number of men for whom employment has been found by the Department of Labour up to the end of March, 1900, is given below. The statement also exhibits the number of persons dependent upon the men assisted:—

	Men.	Dependents.
June, 1891, to 31st March, 1892	2,593	4,729
1st April, 1892, to 31st March, 1893 ..	3,874	7,802
1st April, 1893, to 31st March, 1894 ..	3,371	8,002
1st April, 1894, to 31st March, 1895 ..	3,030	8,883
1st April, 1895, to 31st March, 1896 ..	2,871	8,424
1st April, 1896, to 31st March, 1897 ..	1,718	4,719
1st April, 1897, to 31st March, 1898 ..	2,035	4,928
1st April, 1898, to 31st March, 1899 ..	2,115	4,759
1st April, 1899, to 31st March, 1900 ..	2,147	4,471
	23,754	56,717

SUPPLEMENTAL.

FRIENDLY SOCIETIES (*see page 301*).

THE Registrar of Friendly Societies has supplied particulars of the number of members of friendly societies, the amount of their accumulated capital, and the average capital per member in each of the Australasian Colonies, according to the latest published statistics, arranged in order of membership:—

Colony.	Date of Return.	Number of Lodges.	Number of Members.	Amount of Funds.	Capital per Member.
				£	£ s. d.
Victoria	31st Dec., 1898	1,088	88,726	1,220,276	13 15 1
New South Wales ..	" 1897	817	69,124	596,463	8 12 7
South Australia ..	" 1895	487	42,703	475,654	11 2 9
New Zealand ..	" 1898	410	35,501	678,746	19 2 4
Queensland ..	" 1898	320	27,135	201,830	7 8 9
Tasmania	" 1698	120	11,871	95,202	8 0 5
Western Australia ..	" 1898	68	4,543	35,409	7 15 11

New Zealand shows by far the highest average of capital per member, Victoria following next, but not closely. The South Australian average is not quite two-thirds, and those of New South Wales, Queensland, Western Australia, and Tasmania less than half the sum shown for this colony.

SECTION XIV.—MINING.

THE natural mineral resources of New Zealand are very great, and have exercised in the past a most important influence on the development and progress of the colony. Gold to the value of £55,966,498 was obtained prior to the 31st December, 1899; the value of the produce for the year 1899 having been £1,513,173. In the earliest years the gold was obtained from alluvial diggings, but at the present time much is taken from gold-bearing quartz, which is distributed widely through several parts of the colony, and thus there is a much better prospect of the permanency of this industry than alluvial diggings could give. The greater portion of the gold obtained is, however, still got from alluvial workings.

The yield of silver to the end of 1899 amounted to £276,669 in value, the quantity mined in 1899 having been 349,338 oz., valued at £40,838.

Of other minerals, the value of the product to the same date amounts to £17,158,667, of which kauri-gum yielded £9,707,538, and coal, with coke, £7,193,428.

The quantities and values of precious metals and minerals obtained during the year 1899, and the total value of all mining produce since 1853, are:—

	1899.		Total Value since 1853.
	Oz.	£	£
Gold	389,558	1,513,173	55,966,498
Silver	349,338	40,838	276,669
	738,896	1,554,011	56,243,167
	Tons.		
Copper-ore ..	..	..	17,938
Chrome-ore ..	..	..	37,367
Antimony-ore ..	..	..	52,361
Manganese-ore ..	135	407	59,644
Hæmatite-ore ..	..	..	226
Mixed minerals ..	..	6,591	90,165
Coal	975,234	487,617	7,168,624
Coke (exported) ..	18	9	24,804
Kauri-gum ..	11,116	607,919	9,707,538
		£2,656,554	£73,401,834

Of the gold entered for exportation during the year ended the 31st March, 1900—viz., 392,663 oz., representing a value of £1,526,344—over 59 per cent. came out of quartz-mines; but, if the total yield of gold obtained in the colony be taken, the value of which to 31st March, 1900, is £56,339,718, about 25 per cent. came from quartz-mines, and 75 per cent. from alluvial workings.

MINERAL PRODUCTION (VALUE) OF AUSTRALASIA TO END OF 1898.

The total value of mineral production in the Australasian Colonies to the end of the year 1898 is shown in the following table. The figures, except those for New Zealand, are taken from Mr. Coghlan's "Statistics of the Seven Colonies of Australasia, 1861 to 1898":—

Colony.	Gold.	Silver and Silver-lead.	Copper.	Tin.	Coal.	Other Minerals.	Total.
	£	£	£	£	£	£	£
New S'th Wales	45,794,198	25,812,340	4,624,029	6,292,056	34,321,205	3,010,101	119,853,929
Victoria ...	250,736,820	845,689	216,395	695,100	680,046	218,244	253,384,294
Queensland ...	44,499,955	697,418	2,022,927	4,448,800	2,282,692	239,496	54,191,288
South Australia	2,133,746	105,643	21,529,746	26,142	...	430,281	24,225,558
W'st'n Australia	10,659,716	250	172,115	76,227	1,625	369,944	11,279,877
Tasmania... ...	3,954,647	1,547,790	874,516	6,612,442	368,295	10,777	13,368,467
New Zealand ...	54,453,325	235,831	17,938	...	6,705,802	9,332,384*	70,745,280
Australasia ...	412,234,407	29,244,961	22,447,666	18,150,767	44,359,665	13,611,227	547,048,093

* Including kauri-gum valued at £9,099,619.

GOLD-MINING.

The history of the finding of gold in this colony was briefly sketched in the Year-books for 1893 and 1894, and need not, therefore, be repeated here, but a word may be said on recent developments in mining. Great changes have taken place since the early days, when a man wanted but a pick and shovel, tin dish and cradle, to enable him to earn a livelihood on the diggings. The rich shallow gravels have been to all appearances worked out, the ground is getting deeper, the inroads of water more troublesome, and greatly-improved appliances are needed in order to pump the water or wash away the masses of drift that overlie the gold-bearing layers on the bottom.

The difficulty for many years experienced in working the beds of the larger rivers has been at last overcome by the use of dredging machinery. Dredging has not only been adopted for working river-beds, but has also been applied to great advantage on river flats, which cannot be profitably worked by any other means. So successful, indeed, has this method proved, that it seems to be developing into a very considerable branch of the mining industry.

So numerous are rapid streams and rivers in New Zealand that water is easily available for supplying direct motive-power for all kinds of mining machinery, as well as for the generation and transmission of electric energy where the water-supply is distant from the scene of operations. It has been used at Skipper's for years to generate electricity by means of dynamos, the current being transmitted a distance of several miles over a high range for the purpose of driving a crushing battery. Great improvements have been made in the appliances since the method was first adopted, and at present some 67 per cent. of the power required to generate electricity is obtained in this way.

Skipper's was the first place in New Zealand, if not in the world, where electricity was used to drive a crushing battery; and it is now used at the Premier Mine, Macetown, on the Arrow River, for mine haulage. Electricity has been adopted with equal success at the Brunner coal-mines, near Greymouth, for working the haulage and pumping machinery. It is also used for mining purposes at the Westport Coal Company's Denniston mines.

The total number of gold-miners employed in 1899–1900 was 13,291 as against 14,198 for the previous year. In some places, more especially in Otago, Nelson, and the West Coast, many of the miners do not depend entirely on mining, but employ a part of their time in farming and other pursuits.

The total quantity of gold entered for export during the years ending 31st March, 1899, and 31st March, 1900, for the several districts, and the total quantity and value of the gold exported from the colony from the 1st January, 1857, to the 31st March, 1900, are shown hereunder; but this does not necessarily include the whole of the gold produced, as no doubt much has been taken out of the colony from time to time by people who have evaded the duty, and a good deal has been used for making jewellery and ornaments:—

TABLE SHOWING THE QUANTITY AND VALUE OF GOLD ENTERED FOR EXPORTATION FROM NEW ZEALAND FOR THE YEARS ENDED THE 31ST MARCH, 1899 AND 1900, AND THE TOTAL QUANTITY AND VALUE FROM JANUARY, 1857, TO 31ST MARCH, 1900.

District.	Year ending 31st March, 1899.		Year ending 31st March, 1900.		Increase for Year ending 31st March, 1900.	Total Quantity and Value from January, 1857, to 31st March, 1900.	
	Quantity.	Value.	Quantity.	Value.			
	Oz.	£	Oz.	£	Oz.	Oz.	£
Auckland ..	148,183	545,463	168,836	625,207	20,653	2,484,394	9,340,936
Wellington..	..	..	..	..	..	188	706
Marlborough	621	2,406	344	1,382	*277	86,575	337,220
Nelson ..	1,720	6,882	2,589	10,251	869	258,029	1,019,139
West Coast..	74,700	298,824	94,081	376,076	19,381	5,913,251	23,506,068
Canterbury..	12	49	22	87	10	82	328
Otago ..	78,289	315,306	126,791	513,341	48,502	5,588,689	22,135,321
Totals ..	303,525	1,168,930	392,663	1,526,344	89,138	14,331,208	56,339,718

* Decrease.

It will be seen from the above table that there was last year an increase in the yield of gold of 89,138 oz., or 29·37 per cent. on the figures for the preceding twelve months. Each gold-mining district, excepting Marlborough, showed an increased output, the Otago fields in particular yielding no less than 48,502 oz. more than in the previous year.

Of the total quantity of gold entered for exportation last year Auckland contributed 43·00 per cent.; Marlborough, 0·09 per cent.; Nelson, 0·66 per cent.; West Coast, 23·96 per cent.; and Otago, 32·29 per cent.

Production of Australasian Goldfields.

The gold yield of the Australasian Colonies for 1896, 1897, and 1898 was as under:—

	1896. Oz.	1897. Oz.	1898. Oz.
Queensland	640,385	796,885	920,048
New South Wales	296,072	292,217	340,493
Victoria	805,087	812,765	837,257
South Australia	29,004	10,322	31,961
Western Australia	281,265	675,082	1,050,184
Tasmania	62,591	60,735	74,233
New Zealand	263,722	251,645	280,175[*]
	2,378,126	2,899,651	3,534,851

The increase for the period is 1,156,225 oz. The mint value of Australasian gold averages £3 16s. per ounce, and a comparison of value is therefore as follows: 1896, £9,036,879; 1897, £11,018,674; 1898, £13,430,533: increase, 1896 to 1898, £4,393,654.

The Cyanide Process.

On the Hauraki Goldfields gold is often found either in so finely divided a form that the ordinary methods of amalgamation fail to recover a payable percentage, or it is associated with, or entangled in, base metallic minerals which necessitate the adoption of scientific, and often costly, methods of treatment. In these goldfields the successful use of the cyanide process is steadily extending, with the result that many ores that formerly were worked at a loss by amalgamation processes now yield regular returns on the capital invested.

Indeed, the cyanide process is the most noteworthy improvement as yet introduced in the treatment of gold- and silver-bearing ores. It is particularly suitable where the gold is found in the ore in fine particles; whereas, if the gold be at all coarse, cyanide will do no more than cleanse and brighten its surface and render it fitter for amalgamation. In a paper on "Cyaniding in New Zealand," Mr. James Park, F.G.S., comments on the treatment of these ores:—

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[*] From preceding information it will be observed that the gold produce for New Zealand increased since 1898 to 389,558 oz. in 1899.

Dry Crushing.

Prior to the introduction of the cyanide process the ores were treated by dry crushing and hot pan amalgamation with chemicals, by which a recovery of 65 per cent. was effected.

When cyanide treatment was adopted, dry crushing was naturally continued at the different mills, the dry pulverised material being charged into shallow vats and treated directly with cyanide. From 65 per cent. by pan amalgamation the recovery rose at a bound to 85, and in some cases to 90 per cent., and the results were *so* satisfactory that no further improvement was considered possible.

In a few years, however, it became apparent that dry crushing possessed many disadvantages as compared with wet crushing, the principal ones being the cost of the preliminary drying of the ore, the low duty of the stamps, and the large number of vats required for leaching. In 1897 mine-owners began to turn their attention to wet crushing, and one by one, since the beginning of 1898, the different mills have been adopting wet crushing, until at the present time dry crushing is the exception, and not, as it was *two* years ago, the rule.

Wet Crushing.

I. For ores containing a large proportion of free, easily amalgamable gold, with a certain proportion of fine or "float" gold, and silver-sulphide, the mill practice is:—

(*a.*) Crushing with water.
(*b.*) Plate amalgamation.
(*c.*) *Spitzlutte* separation of sands and slimes.
(*d.*) Cyanide treatment of sands and slimes by ordinary percolation.

A typical example of an ore of this class is that of the Kauri Gold Estates, at Opitonui, where a new forty-stamp mill has just started. The sands and heavy slimes are subjected to the "double" cyanide treatment; but it is doubtful if the additional saving will pay for the extra labour involved. So far no provision has been made for the treatment of the fine slimes. If they are worth it, they will probably be treated by agitation and decanting.

II. For a clean ore, almost identical with that described above, but containing a small proportion of free amalgamable gold and a large proportion of fine cyaniding gold, with little or no slimes, the method of treatment at the Crown Mines is:—

(*a.*) Crushing with cyanide solution.
(*b.*) Direct cyanide treatment of mixed sands and slimes by percolation.
(*c.*) Plate amalgamation of free gold.

With an ore exceptionally free from slimes, it seems that the order of treatment could be reversed with advantage as regards both stamp duty and efficiency of amalgamation on the plates.

III. For ores containing some easily amalgamable gold, and fine gold associated with pyrites and silver-sulphides, the treatment used is:—

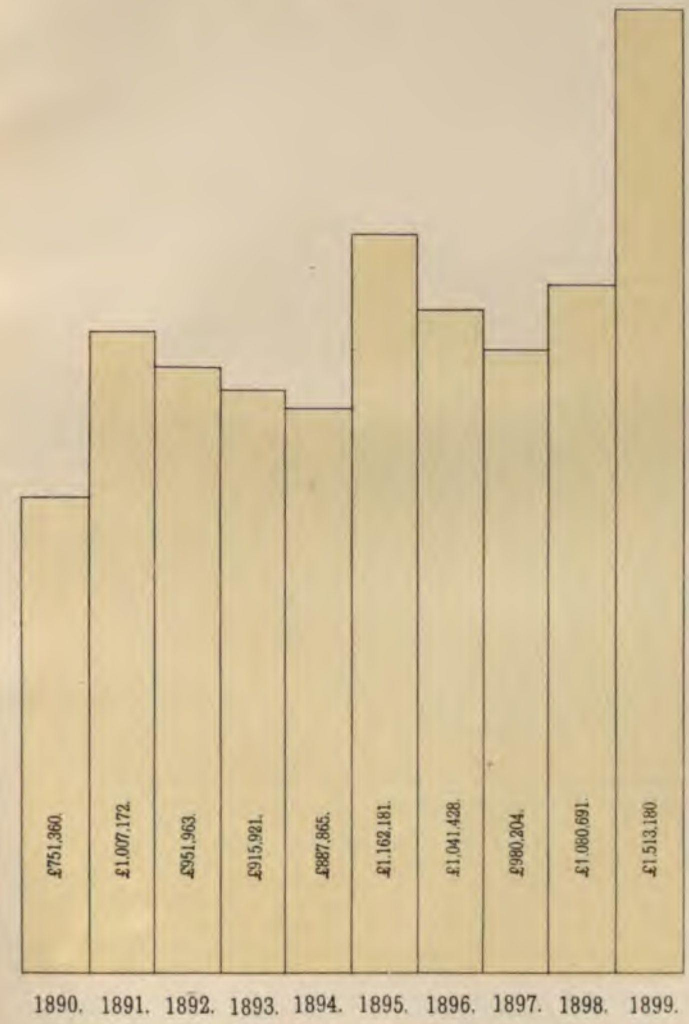
(*a.*) Crushing with water.
(*b.*) Plate amalgamation.
(*c.*) *Spitzlutte* separation of fine slimes, if necessary.
(*d.*) Vanner concentration of sulphurets.
(*e.*) Cyanide treatment of sands by percolation.
(*f.*) Cyanide treatment of sands by agitation and decanting.
(*g.*) Cyanide treatment of concentrates by agitation.

The practice at the Woodstock mill is a typical example of this system, the details being as follows: The ore is chalcedonic and finely crystalline quartz, containing a small proportion of clayey matter and a little pyrites. It is stained a greyish- and blackish-brown colour through the presence of iron and manganese oxides.

IV. For very slimy ores, containing very little easily amalgamable gold and a large proportion of extremely fine gold, besides the usual silver-sulphides, the treatment is as follows:—

DIAGRAM No. 5.

VALUE OF GOLD EXPORTED FROM NEW ZEALAND DURING TEN YEARS, 1890-1899.



(*a*.) Crushing with cyanide solution.
(*b*.) *Spitzlutte* separation of sands and slimes.
(*c*.) Treatment of sands by percolation.
(*d*.) Treatment of slimes by agitation and decanting.

This method of treatment is subject to various modifications as regards mechanical appliances and methods of application, but the general principles are the same everywhere.

By a statute passed in December, 1897, and termed "The Cyanide Process Gold-extraction Act, 1897," an agreement was approved by Parliament under which the Government arranged to purchase the patent rights in New Zealand of the Cassel Gold-extracting Company, thus rendering the said patent rights available for mining purposes at reasonable rates of royalty. The process used under the patent is what is commonly known as the cyanide process, and the operation of the Act should prove highly important in the development of low-grade ores, and otherwise promote the mining industry. The royalties received by the Government up to the 31st March, 1899, amounted to £1,774 18s. 7d.

Quartz and Alluvial Workings.

The working of quartz mines and deep alluvial drifts necessitates a large outlay of money before returns can be expected, and can only be undertaken when capital is available. In the case of quartz mines, they must be sufficiently opened up to ascertain the value and extent of the reefs preparatory to the erection of reduction machinery, which must be constructed on the most modern principles to insure efficiency and economy in the handling and treatment of large bodies of ore.

The introduction of capital has the effect of enabling the claims not only to be opened up at greater depths than heretofore, but they will also be worked in a more systematic and economical manner. Modern machinery and appliances are introduced and erected for the reduction and treatment of the ores, and it is expected that a far larger percentage of the gold will be recovered than has been the case in the past.

The improved appliances introduced in dredging and hydraulic elevating and sluicing machinery have made it possible to work with profit alluvial ground and drifts that a few years ago could not be handled remuneratively.

In the successful development of alluvial drifts containing only a few grains of gold to the ton or cubic yard, a large and constant supply of water is of primary importance, and to secure this the construction of expensive races must be undertaken as the initial step towards systematic working.

In the colony there are large areas covered with auriferous drifts which will prove remunerative if a sufficient quantity of water can be obtained to work them on an extensive scale; and the number of men who can be profitably employed in alluvial workings will necessarily be in proportion to the quantity of water available.

COAL-MINING.

The extent of the coal-measures in New Zealand will make coal-mining one of the large industries in the colony, especially on the west coast of the Middle Island, where bituminous coal exists equal, if not superior, in quality to coal of the same class in any part of the world.

The progressive increase in the output of coal from 1878 to the end of 1899 is shown below:—

Year.	Raised in the Colony.		Imported.	Total raised in the Colony, and imported, per Annum.	Exported (excluding Coal for Fuel by Ocean Steamers).	Total Consumption of Coal within the Colony.	Yearly increase in Consumption within the Colony.
	Total.	Yearly Increase.					
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1878 ..	162,218	..	174,148	336,366	3,921	332,445	..
1879 ..	231,218	69,000	158,076	389,294	7,195	382,099	49,654
1880 ..	299,923	68,705	123,298	423,221	7,021	416,200	34,101
1881 ..	337,262	37,339	129,962	467,224	6,626	460,598	44,398
1882 ..	378,272	41,010	129,582	507,854	4,245	503,609	43,011
1883 ..	421,764	43,492	123,540	545,304	7,172	538,132	34,523
1884 ..	480,831	59,067	148,444	629,275	6,354	622,921	84,789
1885 ..	511,063	30,232	130,202	641,265	2,371	638,894	15,973
1886 ..	534,353	23,290	119,873	654,226	2,862	651,364	12,470
1887 ..	558,620	24,267	107,230	665,850	12,951	652,899	1,535
1888 ..	613,895	55,275	101,341	715,236	27,678	687,558	34,659
1889 ..	586,445	-27,450*	128,063	714,508	39,290	675,218	12,340
1890 ..	637,397	50,952	110,939	748,336	33,404	714,932	39,714
1891 ..	668,794	31,397	125,318	794,112	29,093	764,019	49,087
1892 ..	673,315	4,521	125,453	798,768	28,169	770,599	6,580
1893 ..	691,548	18,233	117,444	808,992	24,288	784,704	14,105
1894 ..	719,546	27,998	112,961	832,507	25,449	807,058	22,354
1895 ..	726,654	7,108	108,198	834,852	26,151	808,701	1,643
1896 ..	792,851	66,197	101,756	894,607	27,974	866,633	57,932
1897 ..	840,713	47,862	110,907	951,620	26,639	924,981	58,348
1898 ..	907,033	66,320	115,427	1,022,460	18,348	1,004,112	79,131
1899 ..	975,234	68,201	99,655	1,074,889	14,146	1,060,743	56,631

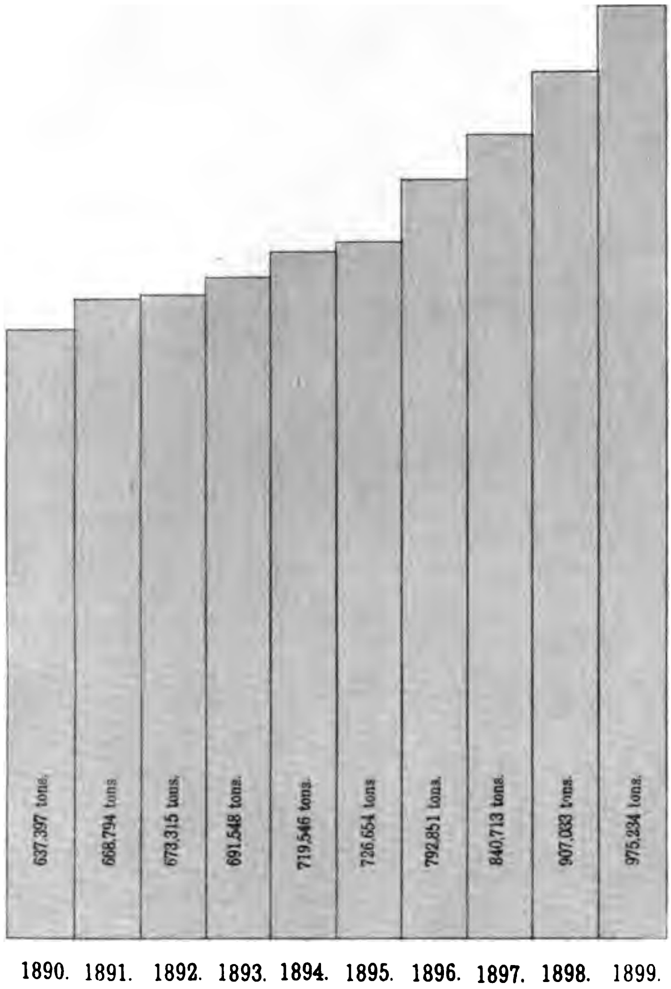
* Decrease.

It will be seen from the above that, with the exception of 1889, there has been a steady increase in the output of coal from the mines in the colony, year after year, since records have been kept by the Mines Department. The yearly increase in output is principally due to the growing demand for consumption within the colony. During a period of twenty-one years the annual consumption of coal in New Zealand has increased to the extent of 728,298 tons, showing that new industries are quickly springing up, requiring fuel for generating motive-power.

The total output from the mines last year was 975,234 tons, as against 907,033 tons for 1898, an increased output of 68,201 tons.

DIAGRAM No. 6.

OUTPUT OF COAL FOR NEW ZEALAND DURING TEN YEARS, 1890-1899.



The coal imported from other countries was 99,655 tons, against 115,427 tons in 1898, a decrease in the importation last year of 15,772 tons. The imports were 98,786 tons from New South Wales, 456 tons from Queensland, 363 tons from Victoria, and 50 tons from the United Kingdom. The total export of coal was 93,843 tons, of which 89,480 tons were colonial produce, and 4,363 tons imported coal from other countries. Of the coal exported, 79,697 tons were for coaling direct steamers trading between the colony and the United Kingdom, and has been treated as coal consumed within the colony, these steamers trading wholly between New Zealand and Great Britain. Taking, therefore, the output from the mines and the coal imported, there is a total of 1,074,889 tons, of which 14,146 tons were exported, leaving the consumption within the colony last year 1,060,743 tons, as against 1,004,112 tons for 1898, an increased consumption of 56,631 tons.

The largest increase in the output last year was in the Greymouth district—namely, 36,021 tons. There was also an increased production from the mines in the Westport district of 22,722 tons, in the Otago District of 16,821 tons, in the Southland district of 1,103 tons, in the Malvern district of 845 tons, and from the Mokau of 817 tons; but there was a decline in other places, the largest falling off being in the Kawakawa and Hikurangi district, 5,671 tons.

The quantities of coal produced in each district are as under:—

Name of District.	Output of Coal.		Increase or Decrease.	Approximate total Output of Coal up to the 31st December, 1899.
	1899.	1898.		
	Tons.	Tons.	Tons.	Tons.
Kawakawa and Hikurangi ..	51,661	57,332	− 5,671	1,083,180
Whangarei, Kamo, Ngunguru, and Whauwhau	15,662	16,808	− 1,146	407,523
Waikato	68,929	70,191	− 1,262	1,089,977
Mokau	4,876	4,059	+ 817	22,588
Pelorus	..	..	..	711
West Wanganui	240	1,230	− 990	51,236
Westport	363,043	340,321	+22,722	3,346,347
Reefton	4,017	5,076	− 1,059	79,765
Greymouth	154,647	118,626	+36,021	2,669,201
Malvern	14,192	13,347	+ 845	369,224
Timaru	..	..	..	10,657
Otago	249,824	233,003	+16,821	3,807,124
Southland	48,143	47,040	+ 1,103	521,347
Totals	975,234	907,033	+68,201	13,458,880

The following table, constructed from "Laboratory Reports of the Geological Survey" (Sir J. Hector) gives the composition of samples of New Zealand coals freshly taken from the principal mines:—

Number.	Description.	Locality.	Analysis.				Evaporative Power.*	
			Fixed Carbon.	Hydro-carbon.	Water.	Ash.	1.	2.
1	Anthracite ..	Acheron, Canterbury ..	84·12	1·96	1·80	12·12	10·93	18·50
2	Bituminous ..	Coalbrookdale ..	74·83	20·50	1·16	3·51	9·70	16·45
3	" ..	"	70·00	22·15	2·52	5·33	9·10	15·40
4	" ..	Banbury	69·97	25·71	0·99	3·33	9·09	15·38
5	Altered brown coal	Malvern Hills ..	68·54	19·89	4·15	7·42	8·27	12·50
6	Bituminous ..	Tyneside	65·59	29·18	0·82	4·41	8·52	13·55
7	Glance coal ..	Rakaia Gorge ..	64·51	21·27	6·76	7·46	8·30	13·20
8	Bituminous ..	Wallsend	62·87	31·64	1·66	3·83	8·17	13·82
9	" ..	Grey River	62·37	29·44	1·99	6·20	8·01	13·22
10	Pitch coal ..	Kawakawa	61·16	28·00	2·51	8·33	7·95	12·55
11	Bituminous ..	Preservation Inlet ..	60·88	28·60	4·33	6·19	7·91	12·80
12	Pitch coal ..	Blackball, Grey River	60·20	29·97	8·01	1·82	7·82	12·20
13	Bituminous ..	Mokihinui	59·75	32·14	3·97	4·14	7·76	11·80
14	" ..	Coalpit Heath ..	58·81	38·98	1·02	1·19	7·64	12·96
15	" ..	Mokihinui	57·92	34·94	3·96	3·18	7·50	12·75
16	" ..	Brunner Mine ..	56·62	35·68	1·59	6·11	7·36	12·46
17	" ..	" ..	56·21	37·73	1·50	4·56	7·30	12·36
18	" ..	Westport	56·01	37·17	2·60	4·22	7·28	12·30
19	" ..	Mokihinui	55·59	38·86	3·16	2·39	7·20	12·22
20	" ..	Brunner	54·16	35·85	2·50	7·49	7·04	11·91
21	Altered brown coal	Malvern Hills ..	53·29	32·04	12·65	2·02	6·92	11·50
22	Bituminous ..	Wallsend	53·10	35·47	1·41	10·02	6·90	11·68
23	" ..	Otamataura Creek ..	52·89	36·63	2·19	8·29	6·90	11·70
24	" ..	Near Cape Farewell ..	51·37	38·72	4·38	5·53	6·31	11·60
25	Pitch coal ..	Kawakawa	50·15	42·63	4·18	3·04	6·50	11·80
26	Glance coal ..	Whangarei	50·11	38·68	8·01	3·20	6·50	11·75
27	Pitch coal ..	Kamo	50·01	37·69	9·61	2·69	6·50	11·17
28	Brown coal ..	Malvern Hills ..	49·99	35·42	11·79	2·80	6·49	10·90
29	"	Fernhill	49·95	36·95	12·00	1·10	6·49	10·99
30	" ..	Allandale	47·31	34·26	12·41	6·02	6·15	10·96
31	" ..	Kaitangata	46·48	33·48	14·66	5·38	6·04	10·22
32	" ..	Shag Point	46·21	32·65	16·02	5·12	6·00	10·16
33	" ..	Homebush	44·92	36·00	15·83	3·25	5·83	9·87
34	Pitch coal ..	Hikurangi, Whangarei	44·50	47·00	5·99	2·51	5·78	9·79
35	Brown coal ..	Hokonui	44·28	38·22	16·50	1·00	5·75	9·77
36	" ..	Kaitangata	44·11	38·32	15·44	2·13	5·74	9·96
37	" ..	Nightcaps	43·62	33·68	18·33	4·37	5.67	9·59
38	Pitch coal ..	Shag Point	43·19	30·05	15·82	10·94	5·61	9·52
39	Brown coal ..	Springfield	42·68	33·66	18·65	5·01	5·55	9·38
40	" ..	Orepuki	42·64	36·26	14·44	6·66	5·54	9·38
41	" ..	Kaitangata	38·29	32·43	17·50	11·78	4·87	8·32
42	" ..	Shag Point	35·76	30·86	13·22	20·16	4·64	7·85
43	" ..	Allandale	34·72	41·43	18·99	4·86	4·51	7·63
44	Pitch coal ..	Grey River	34·72	56·48	6·20	2·60	4·51	7·63

For Comparison.

	Newcastle, N.S.W.	Best	58·33	34·17	1·83	5·67	7·50	12·82
	"	Worst	53·34	26·66	3·33	16·67	6·90	11·72

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*The second column headed "Evaporative Power" is obtained by the use of a multiple computed from the results of Professor Liversedge's experiments upon the coals of New South Wales. The multiple used for the first column is the one which has long been generally used for computing the evaporative power of coals; but, to prevent any unfair and prejudicial comparison of our coals with those of New South Wales, the second column is given.

As regards the quality of the coal, it cannot be surpassed. The late Sir John Coode, in his presidential address to the Institute of Civil Engineers, London, stated: "The bituminous coal found on the west coast of the Middle Island is declared by engineers to be fully equal, if not superior, to the best description from any part of the world."

The quantity of each class of coal produced in 1898 and 1899 was:—

Class of Coal.	Output of Coal.		Increase.	Approximate total Output of Coal up to the 31st December, 1899.
	1899.	1898.		
	Tons.	Tons.	Tons.	Tons.
Bituminous	588,036	538,477	49,559	7,272,962
Pitch	37,835	36,432	1,403	1,760,323
Brown	314,542	298,365	16,177	3,979,161
Lignite	34,821	33,759	1,062	446,434
Totals	975,234	907,033	68,201	13,458,880

It has been computed that to deliver coal at the pit-mouth costs in labour 6s. a ton. The number of men employed in all the coal-mines last year was 2,153, and the output of coal, 975,234 tons: the average earning per man would thus be £135 17s. 9d. per annum, or about £2 12s. 3d. per week.

OTHER METALS OR MINERALS.

Very little has been done in the colony to prospect and develop mines other than for gold and silver. The only exports last year of metalliferous products, excluding gold and silver, were 135 tons of manganese-ore, 1,227 tons of sulphur, and small parcels of other minerals, representing an aggregate value of £6,998.

KAURI-GUM.

The quantity of kauri-gum exported last year was 11,116 tons, as against 9,905 tons for 1898. Last year's produce (£607,919) gave an average value of about £54 13s. 9d. per ton, while for 1898 the average was £59 4s. 9d. per ton.

SECTION XV.—METEOROLOGY.

TEMPERATURE, RAINFALL, ATMOSPHERIC PRESSURE, AND WIND, THROUGHOUT NEW ZEALAND, AS OBSERVED AT SIX STATIONS, FOR THE YEAR 1899.

(*From Tables prepared by Sir James Hector.*)

THE OBSERVATIONS WERE TAKEN AT 9.30 A.M.

Stations and Months.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	Prevailing Wind.
	Highest.	Lowest.	Wet Days.	Fall.		
Auckland (lat. 36° 50′ S.; long. 174° 50′ 40″ E.; alt. 125 ft.).	° Fahr.	° Fahr.	No.	Inches.	Inches.	
January	80·0	54·0	13	3·640	29·830	SW, N, NE.
February	84·5	50·0	7	1·860	30·030	NE, SE.
March	77·0	52·0	10	2·200	30·030	S, NE, SW.
April	76·0	50·0	11	2·410	30·050	SE, SW.
May	73·0	41·0	15	2·980	29·950	SW, S, NW.
June	63·1	39·0	14	4·760	30·060	SE, NE, E.
July	61·0	37·0	17	5·320	30·020	SW, SE.
August	65·0	41·0	12	2·780	30·120	SE, SW.
September	65·0	44·5	10	1·310	30·140	SW.
October	68·0	47·0	22	4·790	29·980	SW.
November	72·0	48·0	15	2·050	29·960	SW, NE.
December	78·0	53·5	5	0·340	29·990	SW.
New Plymouth (lat. 39° 3′ 35″ S.; long. 174° 4′ 58″ E.; alt. 100 ft.).						
January	76·0	44·0	16	9·990	29·700	NE, SW.
February	79·0	40·0	8	3·950	30·010	SE.
March	81·5	43·0	18	3·650	30·024	SE, NW.
April	79·0	40·0	16	6·490	30·132	NW.
May	75·0	33·0	15	9·420	29·984	SE.
June	72·0	42·0	9	3·842	30·128	SE.
July	89·0	35·0	22	6·530	29·990	SW, SE.
August	78·0	34·0	13	3·960	30·210	SE.
September	73·0	36·0	22	2·840	30·250	NE, SE.
October	73·0	37·0	25	5·860	30·000	NE, W, NW.
November	75·0	40·0	20	5·215	29·980	NE, NW.
December	77·0	47·0	23	2·980	30·030	W.

Stations and Months.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	Prevailing Wind.
	Highest.	Lowest.	Wet Days.	Fall.		
Wellington (lat. 41° 16′ 25″ S.; long. 174° 47′ 25″ E.; alt. 140 ft.).	° Fahr.	° Fahr.	No	Inches.	Inches.	
January	76·3	50·0	15	4·835	29·731	NW.
February	73·0	44·0	9	8·423	30·093	NW, SE.
March	76·0	41·9	12	4·578	30·045	NW, SE.
April	73·0	38·9	13	3·608	30·017	NW, S
May	65·0	37·0	26	6·870	29·949	SE, S, NW.
June ..	59·0	35·0	15	2·660	30·087	S, NW.
July	57·3	31·0	22	6·447	29·956	NW, S.
August	59·0	34·0	15	2·431	30·208	SE.
September	64·0	38·0	10	3·615	30·065	NW.
October	68·0	39·0	17	2·520	29·756	NW, S.
November	74·0	38·0	15	2·250	29·843	NW, S.
December	73·0	44·0	12	4·478	29·843	NW.
Hokitika (lat. 42° 41′ 30″ S.; long. 170° 59′ E.; alt. 12 ft.).						
January	76·0	44·5	19	20·540	29·684	SW, NW.
February	76·5	39·5	4	8·380	30·077	SW.
March	82·5	39·5	10	8·830	30·020	SW.
April	70·0	39·0	9	4·550	30·033	SW.
May	66·0	33·0	10	10·580	29·911	E.
June	62·0	32·5	12	4·450	30·041	E.
July	60·0	27·0	15	8·640	29·934	E.
August	66·5	31·0	6	1·380	30·162	E.
September	61·5	34·0	19	6·760	30·051	SW, NW.
October	69·5	36·0	18	11·880	29·783	SW.
November	72·0	37·0	15	10·390	29·830	SW.
December	69·0	42·5	15	13·400	29·861	SW, NW.
Dunedin (lat. 45° 52′ 11″ S.; long. 170° 31′ 7″ E.; alt. 300 ft.).						
January	81·0	40·0	13	5·506	29·605	NE, W.
February	79·0	40·0	9	3·218	30·025	SW.
March	79·0	36·0	15	5·144	29·973	SW, NE.
April	79·0	35·0	15	3·367	29·921	SW, W
May	62·0	33·0	15	3·522	29·917	SW.
June	58·0	32·0	6	0·816	29·984	SW.
July	55·0	23·0	16	3·772	29·906	SW, W.
August	58·0	30·0	10	1·834	30·136	W, SW.
September	70·0	34·0	10	2·202	29·941	W, SW.
October	80·0	32·0	15	1·796	29·708	SW.
November	74·0	33·0	15	3·588	29·749	SW, NE
December	75·0	41·0	20	3·856	29·708	SW, W.

Stations and Months.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	Prevailing Wind.
	Highest.	Lowest.	Wet Days.	Fall.		
Chatham Islands (lat. 43° 52′ S.; long. 176° 42′ W.; alt. 100 ft.).	° Fahr.	° Fahr.	No.	Inches.	Inches.	
January	69·0	41·0	14	2·750	29·600	SW, NW.
February	69·0	40·0	11	4·730	29·950	SW.
March	69·0	42·0	9	3·420	30·000	SW, N, NE.
April	66·0	43·5	13	2·230	29·870	SW, NW.
May	61·0	38·0	19	3·640	29·750	NW, SW.
June	57·0	37·0	17	1·350	29·980	SW, SE.
July	55·0	31·0	26	3·310	29·670	SW.
August	53·0	33·0	18	1·250	30·040	SW, SE.
September	59·0	31·0	11	0·620	29·930	NW, SW.
October	63·0	39·0	18	2·600	29·730	SW, W.
November	63·0	37·0	20	3·190	29·770	SE, N, SW, NW.
December	67·0	38·0	11	1·370	29·660	SW, NW.

SIX STATIONS: COMPARATIVE TABLE; YEAR 1899.

Stations.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	Prevailing Wind.
	Highest, and Date.	Lowest, and Date.	Days on which Rain fell.	Greatest Fall, and Date.		
	° Fahr.	° Fahr.	No.	Inches.	Inches.	
Auckland	84·5, 17 Feb.	37·0, 26 July	151	1·330, 19 July	30·013	SW.
New Plymouth	89·0, 19 July	33·0, 12 May	207	2·400, 24 May	30·036	SE.
Wellington	76·3, 1, 2, 6 Jan.	31·0, 15, 26 July	181	3·530, 6 Feb.	29·966	NW.
Hokitika	82·5, 28 Mar.	27·0, 15 July	152	4·930, 30 Jan.	29·949	SW, E.
Dunedin	81·0, 13 Jan.	23·0, 25 July	159	2·400, 17 Jan.	29·881	SW, W.
Chatham Islands ..	69·0, 16 Jan., 22 Feb., 7 Mar.	31·0, 26 July 10 Sept.	187	2·650, 23 Feb.	29·830	SW, NW.

The following table, compiled from information published in the Statistical Abstract for the Colonial Possessions of the United Kingdom, shows the shade temperature for each month in New Zealand and other British Colonies. The figures given are the means of four years (H signifies highest, and L lowest) :—

British Possessions (Stations and Height in Feet above Sea Level where known).	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Year.	
	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.
New Zealand—	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.
Wellington (140)	78	45	78	47	76	44	70	43	66	38	62	34	59	33	62	34	65	37	69	41	74	33	75	44	78	33
Queensland—																										
Brisbane (130)	92	64	93	63	91	61	85	54	80	50	76	42	75	39	78	41	85	46	91	50	94	57	97	61	97	39
New South Wales—																										
Sydney (155)	92	59	89	58	84	50	79	51	72	48	67	44	63	39	70	42	77	45	88	48	87	54	94	57	94	39
Victoria—																										
Melbourne (91)	101	48	99	47	99	45	86	40	74	37	64	37	62	32	68	34	74	34	81	40	94	44	96	45	101	32
South Australia—																										
Adelaide (140)	108	49	106	50	100	48	89	45	78	40	67	38	65	36	74	39	79	41	86	41	96	45	101	48	108	36
Western Australia—																										
Perth (47)	107	50	102	53	98	52	96	57	81	40	70	38	70	37	73	38	80	42	83	42	93	48	100	51	107	37
Tasmania—																										
Hobart (160)	91	45	94	45	93	44	75	38	71	37	61	34	59	33	66	33	72	35	77	35	92	40	86	43	94	33
Natal—																										
Durban (150)	99	63	95	61	94	60	94	58	89	52	86	49	88	48	91	49	96	50	91	53	97	57	98	59	99	49
Cape Town—																										
Royal Observatory (37)	94	54	90	51	92	49	86	45	80	42	76	39	74	37	76	37	83	39	86	44	89	48	90	52	94	37
Hongkong—																										
Observatory (110)	73	47	78	46	77	49	84	58	89	68	91	73	91	74	91	74	92	70	90	66	82	55	79	49	91	46
Straits Settlements—																										
Singapore (30)	88	70	90	70	91	71	91	73	90	73	90	72	90	72	89	72	89	71	89	71	89	71	89	70	91	70
Mauritius—																										
Royal Alfred Observatory (179) ...	84	69	84	71	84	70	82	70	80	62	77	60	75	59	75	59	77	62	80	62	82	66	84	68	84	59
Canada—																										
Toronto (350)	47	-3	45	-3	51	6	71	22	78	31	86	44	88	46	89	47	82	41	71	27	56	13	45	-1	89	-3
Montreal (187)	45	-14	42	-13	44	0	69	24	81	32	87	43	88	50	86	50	81	39	70	27	59	11	43	-11	88	-13
St. John (N.B.) (116)	49	-7	46	-7	47	4	62	22	69	33	81	42	79	49	77	48	73	37	60	26	56	16	49	-3	81	-7
Halifax (122)	50	-1	46	-3	50	10	63	22	73	32	83	39	84	48	84	49	80	36	69	29	60	21	51	3	84	-3
Charlottetown, Prince Edward Island (38)	47	-6	43	-9	47	5	60	20	70	31	77	39	80	49	79	49	75	39	66	30	58	19	47	1	80	-9
Winnipeg, Manitoba (764) ...	34	-37	32	-37	49	-25	76	8	82	20	90	35	87	40	91	34	86	30	73	17	53	-16	39	-29	91	-37
Victoria, British Columbia (10) ...	51	14	55	22	60	30	67	29	73	38	76	39	79	43	76	44	71	38	64	35	55	30	51	23	79	14
St. John's, Newfoundland (125) ...	48	-6	50	-8	50	11	61	15	71	27	76	33	81	41	79	42	78	33	65	24	62	19	51	9	81	-8
Barbados—																										
Joes River (430)	81	67	81	67	83	69	84	70	84	71	85	72	84	70	85	70	85	71	85	71	84	70	83	69	85	67
Bahamas—																										
Military Hospital	77	63	79	68	79	67	84	69	89	72	88	73	89	78	89	73	87	75	86	77	82	70	77	67	89	63
Jamaica—																										
Kingston (60)	91	63	90	63	90	62	91	68	91	70	92	71	95	71	93	73	92	70	93	69	91	67	90	63	95	62
Trinidad (130)	86	67	87	68	88	69	88	70	89	70	86	71	86	71	86	70	89	70	88	70	87	70	85	69	89	67

SECTION XVI.—OCCUPATION OF LAND; AND LIVE STOCK.

THE occupation of land must not be confused with ownership,* because there are large parcels of lands held which are unused and unoccupied. Neither can lands occupied be properly compared with the returns of Crown lands alienated or in process of alienation, for certain lands have passed into the hands of Europeans which were never made waste lands of the Crown.

The occupied lands of the colony for 1899–1900 have been returned by the Department of Agriculture at 34,422,653 acres, including Crown lands leased for pastoral purposes only, or 36,385 acres in excess of the quantity for the preceding year.

Tables are given showing the numbers and acreages of holdings, grouped according to size, for the four years in which the Department of Agriculture has compiled the information.

In 1895 the holdings of over 1 acre in extent, as returned to the Registrar-General, numbered only 46,676. Holdings occupied by Maoris were excluded, besides holdings of exactly one acre, also gardens and orchards attached to residences.†

OCCUPIED LANDS: HOLDINGS.

[This and the succeeding statement deal with the full extent of occupied land, *including* Crown pastoral leases.]

Sizes of Holdings.	No. of Holdings.			
	1896–97.	1897–98.	1898–99.	1899–1900.
1 acre to 10 acres, inclusive ..	16,715	17,133	18,230	17,454
10 acres to 50 „ ..	11,008	11,182	11,426	11,505
50 „ 100 „ ..	6,833	7,068	7,276	7,195
100 „ 200 „ ..	8,804	9,192	9,164	9,177
200 „ 320 „ ..	5,296	5,481	5,584	5,675
320 „ 640 „ ..	5,244	5,436	5,555	5,830
640 „ 1,000 „ ..	1,829	1,956	1,946	2,128
1,000 „ 5,000 „ ..	2,367	2,454	2,589	2,667
5,000 „ 10,000 „ ..	343	345	369	352
10,000 „ 20,000 „ ..	227	246	220	233
20,000 „ 50,000 „ ..	162	164	175	169
50,000 acres and over	112	102	105	100
	58,940	60,759	62,639	62,485

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* The only information in reference to ownership of land, which is available, gives figures up to the year 1892. It is contained in Parliamentary Return B.-20A of that year, and states the total number of owners of land (town and country holdings of all sizes) to be 91,501 for the colony. But the Commissioner of Taxes pointed out in his remarks that the most important figures (showing ownership of *productive* land) are those of freeholders outside boroughs and town districts, and excluding holdings of under 5 acres. These figures are:—

NEW ZEALAND OWNERS (OVER 5 ACRES).

Year 1892	38,935	Year 1886	34,450
„ 1889	37,432	„ 1883	30,764

† At the census of April, 1896, the actual number of persons described in the census schedules as having occupations necessitating their occupying holdings of land was 36,643. This number includes 31,577 farmers, 2,115 runholders, 1,402 market-gardeners, 619 horticulturists, 430 dairy-farmers, 225 fruit-growers, 175 nurserymen, 33 vignerons, 32 poultry-farmers, 19 bee-farmers, and 16 others.

The holdings are shown to have increased by the number of 3,545 since 1896–97.

The total acreage of occupied land is given in the following table:—

OCCUPIED LANDS: ACREAGES.

Sizes of Holdings in Acres.	1896–97. Acres.	1897–98. Acres.	1898-99. Acres.	1899-1900. Acres.
1 to 10 inclusive	69,626	68,929	68,671	70,290
10 „ 50 „	316,493	317,321	315,651	322,936
50 „ 100 „	548,035	558,798	570,503	568,716
100 „ 200 „	1,369,170	1,396,699	1,401,171	1,404,581
200 „ 320 „	1,387,431	1,431,406	1,469,859	1,475,195
320 „ 640 „	2,449,451	2,492,275	2,568,462	2,688,231
640 „ 1,000 „	1,486,693	1,611,267	1,649,580	1,731,636
1,000 „ 5,000 „	4,929,539	5,165,119	5,364,539	5,495,467
5,000 „ 10,000 „	2,422,197	2,416,149	2,579,773	2,451,073
10,000 „ 20,000 „	3,293,706	3,501,576	3,274,623	3,201,355
20,000 „ 50,000 „	4,913,228	5,251,819	5,448,033	5,535,541
50,000 and over ..	10,126,643	9,769,121	9,675,403	9,477,632
	33,312,212	33,980,479	34,386,268	34,422,653

In regard to holdings, out of a total of 62,485 in 1900, the large proportion of 36,154, or 57·86 per cent., were from 1 to 100 acres in extent; 45,331 or 72·55 per cent., were from 1 to 200 acres; and 51,006, or 81·63 per cent., were from 1 to 320 acres in size. The total number over 320 acres was only 11,479, or 18·37 per cent. of the whole, thus indicating a considerable degree of moderately close settlement, although the area of the holdings over the 320 acres limit necessarily shows as very large in a table which includes the Crown pastoral leases.

The plan of excluding these leases from the table showing the holdings in classes has its advantages, though not now adopted.

From the total extent of occupied land shown for the colony, such of the area of the Crown pastoral leases *as has been distinguished by the enumerators* can be deducted, and comparison then made for the census years 1886 and 1891, and the Agricultural Department returns for 1899–1900. The figures are:—

—	Census Results, March, 1886.	Census Results, April, 1891.	Figures returned by Department of Agriculture, 1899-1900.
	Acres.	Acres.	Acres.
Total area of occupied land (after deducting Crown pastoral leases)	17,077,074	19,951,925	25,607,049

The acreage shown in the returns as held on Crown pastoral lease may have been understated in the returns rendered by occupiers, for the table (which is given on the next page) shows less than nine millions of acres. The figures in the previous column headed "Held from Crown under various tenures" seem greater than they should be, judging from the Lands Department returns. Possibly there may have been some misplacements, and caution is advised in using the numbers in the last two columns.

OCCUPATION OF LAND TENURE.

Provincial Districts.	Total Area of Holdings.	Freehold.	Leased from Private Individuals or Bodies.	Leased from Natives.	Held from Crown under Different Tenures.	Held under Pastoral Licenses.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland ..	5,063,778	3,356,396	453,430	579,459	709,368	75,275
Taranaki ..	997,969	549,308	198,027	80,474	168,088	867
Hawke's Bay ..	3,290,312	1,960,398	307,365	785,399	178,362	87,713
Wellington ..	3,663,180	2,408,427	468,653	353,583	329,502	3,766
Marlborough ..	2,154,130	308,988	88,641	5,047	398,071	913,433
Nelson ..	1,994,230	968,450	73,575	16,309	355,140	551,846
Westland ..	660,134	56,415	30,363	5,367	178,015	400,975
Canterbury ..	6,331,606	2,734,083	817,547	10,750	439,667	2,369,259
Otago ..	10,207,434	2,890,581	1,001,678	7,988	1,894,717	4,412,470
Totals ..	34,422,653	15,652,686	3,429,068	1,743,496	4,781,800*	8,815,604*

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* For remarks as to the accuracy of the figures in these columns see above.

It would appear that holders of their lands from the Crown do not return to collectors so much as the quantity on which they pay rent to Government. The acreages stated to be held under Crown pastoral license do not agree with the tables of the Lands Department.

Arranged according to the number of holdings, the provincial districts stand in order as under:—

Auckland	14,806 holdings.
Otago	13,929 "
Canterbury	10,965 "
Wellington	9,977 "
Taranaki	4,295 "
Hawke's Bay	3,298 "
Nelson	3,084 "
Marlborough	1,448 "
Westland	683 "

The occupied holdings of the North Island now considerably outnumber those of the Middle Island, the numbers being: North Island, 32,376; Middle Island, 30,109. For the year 1896–97 the returns showed 29,535 holdings for the Middle Island, against 29,369 for the North, besides 36 holdings at the Chatham Islands, of which no account was taken for the last three years.

The full details of holdings and acreages, classified according to size, for the year 1899–1900 will be found in the table on the following page.

OCCUPATION OF LAND: NUMBER AND AREA OF HOLDINGS (INCLUDING CROWN PASTORAL LEASES).

Provincial Districts.	Total of Holdings.	1-10 Acres, inclusive.	Over 10-50 Acres, inclusive.	Over 50-100 Acres, inclusive.	Over 100-200 Acres, inclusive.	Over 200-320 Acres, inclusive.	Over 320-640 Acres, inclusive.	Over 640-1,000 Acres inclusive.	Over 1,000-5,000 Acres, inclusive.	Over 5,000-10,000 Acres, inclusive.	Over 10,000-20,000 Acres, inclusive.	Over 20,000-50,000 Acres, inclusive.	Over 50,000 Acres
Auckland: Area in acres ...	5,063,778	15,664	85,947	153,546	340,333	344,227	589,246	372,772	1,052,994	523,007	341,012	490,997	754,033
Number of holdings ...	*14,806*	*4,013*	*2,859*	*1,942*	*2,272*	*1,326*	*1,288*	*466*	*513*	*76*	*26*	*16*	*9*
Taranaki: Area in acres ...	997,959	2,555	16,983	55,843	172,449	154,250	206,075	109,044	247,079	20,181	13,500	...	...
Number of holdings ...	*4,295*	*523*	*584*	*699*	*1,152*	*603*	*456*	*139*	*135*	*3*	*1*	...	...
Hawke's Bay: Area in acres ...	3,290,212	5,394	17,043	18,498	42,649	44,452	104,859	76,157	439,857	345,251	641,749	1,028,887	525,416
Number of holdings ...	*3,298*	*1,276*	*626*	*247*	*288*	*169*	*222*	*92*	*246*	*49*	*50*	*28*	*5*
Wellington: Area in acres ...	3,663,180	11,702	46,693	92,556	256,463	235,660	506,279	338,795	988,630	375,227	366,669	279,496	165,010
Number of holdings ...	*9,977*	*2,650*	*1,729*	*1,093*	*1,574*	*886*	*1,078*	*411*	*462*	*54*	*28*	*10*	*2*
Marlborough: Area in acres ...	2,154,130	1,598	4,883	9,039	25,295	31,951	78,363	63,093	213,050	89,744	162,359	390,062	1,084,693
Number of holdings ...	*1,448*	*459*	*198*	*114*	*165*	*127*	*158*	*77*	*105*	*13*	*10*	*13*	*9*
Nelson: Area in acres	1,994,220	3,085	19,377	31,407	65,687	72,212	118,306	86,998	234,808	39,248	71,644	439,796	811,652
Number of holdings ...	*3,084*	*774*	*663*	*409*	*455*	*275*	*262*	*115*	*101*	*5*	*5*	*13*	*7*
Westland: Area in acres ...	660,134	645	3,953	6,288	15,200	14,295	16,659	12,577	28,568	106,440	224,169	163,720	67,620
Number of holdings ...	*683*	*208*	*133*	*85*	*100*	*53*	*39*	*16*	*14*	*16*	*13*	*5*	*1*
Canterbury: Area in acres ...	6,391,606	14,192	64,255	93,360	186,796	215,853	393,181	273,776	1,051,304	390,844	502,909	1,178,274	2,026,862
Number of holdings ...	*10,965*	*3,508*	*2,295*	*1,221*	*1,251*	*847*	*843*	*328*	*520*	*54*	*37*	*36*	*25*
Otago: Area in acres	10,207,434	15,455	63,802	108,179	299,709	362,295	675,263	398,424	1,239,177	561,131	877,344	1,564,309	4,042,346
Number of holdings ...	*13,929*	*4,043*	*2,418*	*1,385*	*1,920*	*1,389*	*1,484*	*484*	*571*	*82*	*63*	*48*	*42*
Totals { Area in acres ...	34,422,653	70,290	322,936	568,716	1,404,581	1,475,195	2,688,231	1,731,636	5,495,467	2,451,073	3,201,355	5,535,541	9,477,632
Totals { *Number of holdings*	*62,485*	*17,454*	*11,505*	*7,195*	*9,177*	*5,675*	*5,830*	*2,128*	*2,667*	*352*	*233*	*169*	*100*

Live-stock.

A comparative table is presented showing the increase in live-stock since the year 1858. The figures are taken from the census as far as 1891, but for 1895–96 and following years the results of the enumeration made annually by the Department of Agriculture under "The Agricultural and Pastoral Statistics Act, 1895," have been made use of.

Year.	Horses.	Asses and Mules.	Cattle.	Sheep.	Goats.	Pigs.	Poultry.
1858 ..	14,912	122	137,204	1,523,324	11,797	40,734	*
1861 ..	28,275	153	193,285	2,761,383	12,191	43,270	* 236,098
1864 ..	49,409	339	249,760	4,937,273	12,005	61,276	378,414
1867 ..	65,715	323	312,835	8,418,579	11,964	115,104	676,065
1871 ..	81,028	397	436,592	9,700,629	12,434	151,460	872,174
1874 ..	99,859	267	494,917	11,704,853	14,276	123,921	1,058,198
1878 ..	137,768	241	578,430	13,069,338	14,243	207,337	1,323,542
1881 ..	161,736	362	698,637	12,985,085	11,223	200,083	1,566,114
1886 ..	187,382	297	853,358	16,564,595	10,220	277,901	1,679,021
1891 ..	211,040	348	831,831	18,128,186	9,055	308,812	1,790,070
1895–96	237,418	426	1,047,901	19,826,604†	*	239,778	*
1896–97	249,813	434	1,138,067	19,138,493†	*	209,834	*
1897–98	252,834	393	1,209,165	19,687,954†	*	186,027	*
1898–99	258,115	534	1,203,024	19,673,725†	*	193,512	*
1899–1900	261,931	459	1,210,439	19,348,506†	*	249,751	*

* Not enumerated. † Numbers for April, 1895, 1896, 1897, 1898, and 1899.

The stock owned by Maoris in the year 1896, which is included above, comprised 314,406 sheep, and 29,125 head of cattle. The number of horses is not specified, but is known to be large.

Table showing for each County in New Zealand the Number of Horses, Cattle, Sheep, and Pigs in 1899.

County.	Horses, November, 1899.	Cattle, including Calves, November, 1899.	Dairy Cows, included in foregoing.	Sheep, including Lambs, April, 1899.	Pigs, November, 1899.
Mongonui ..	1,806	7,902	735	28,348	2,440
Whangaroa ..	550	1,735	115	7,179	1,076
Hokianga ..	2,607	6,592	1,783	13,498	3,359
Bay of Islands ..	2,205	9,705	1,600	37,190	1,833
Hobson	3,166	17,960	3,476	16,628	4,636
Whangarei ..	3,638	26,667	7,122	45,209	1,885
Otamatea ..	1,417	12,188	2,018	52,875	905
Rodney	1,925	11,353	2,917	73,326	926
Waitemata ..	2,386	12,190	3,817	38,137	1,530
Eden	5,887	6,942	4,253	2,387	2,707
Manukau ..	7,802	41,671	12,892	93,873	7,310
Coromandel ..	709	3,256	810	12,700	353
Thames ..	1,785	4,304	1,749	6,782	1,485
Ohinemuri ..	1,482	3,569	1,097	4,654	1,205
Piako	2,321	26,908	3,211	182,872	1,743

TABLE SHOWING THE NUMBER OF HORSES, CATTLE, SHEEP, ETC.—*continued.*

County.	Horses, November, 1899.	Cattle, including Calves, November, 1899.	Dairy Cows, included in foregoing.	Sheep, including Lambs, April, 1899.	Pigs, November, 1899.
Waikato ..	2,689	16,913	3,756	77,747	2,617
Waipa	2,927	19,255	5,875	41,678	3,967
Raglan	3,066	21,353	2,882	75,405	5,494
Kawhia	3,300	12,458	816	51,073	9,131
West Taupo ..	1,643	5,392	349	..	2,255
East Taupo ..	..	..	..	34,025	..
Rotorua.. ..	888	920	205	..	960
Tauranga ..	2,635	13,916	2,068	7,411	2,960
Whakatane ..	3,002	8,716	1,901	46,346	3,133
Opotiki	..	..	..	..	..
Waiapu ..	3,137	13,952	482	308,649	3,100
Cook	6,055	29,957	3,495	824,129	2,405
Clifton	1,121	14,639	4,274	23,178	2,288
Taranaki ..	5,382	55,225	19,905	28,560	13,560
Stratford ..	2,232	38,329	13,674	65,430	6,182
Hawera ..	5,737	71,049	26,506	165,593	12,455
Patea	2,999	23,065	5,652	225,904	2,852
Wairoa	2,931	7,956	726	548,567	961
Hawke's Bay ..	7,748	29,635	4,870	1,250,858	4,690
Waipawa ..	4,829	34,729	7,053	731,597	3,822
Patangata ..	2,816	24,788	675	760,854	633
Waitotara ..	2,103	10,107	2,385	180,416	1,513
Wanganui ..	4,017	14,871	2,935	386,845	3,931
Rangitikei ..	4,793	23,448	3,943	513,877	3,080
Oroua	4,771	25,405	10,124	360,409	8,575
Kiwitea	1,875	13,077	4,417	262,340	3,262
Pohangina ..	876	5,592	2,029	101,998	1,782
Manawatu ..	2,314	16,574	4,561	221,668	3,447
Horowhenua ..	2,449	15,830	4,572	161,252	4,044
Pahiatua ..	1,762	16,186	6,267	182,493	3,843
Akitio	818	7,325	542	132,036	272
Eketahuna ..	982	5,482	2,878	58,294	1,685
Mauriceville ..	324	2,214	1,385	50,596	547
Wairarapa North ..	4,346	23,683	2,855	646,471	1,798
Wairarapa South ..	4,841	41,044	7,846	604,405	5,362
Hutt	4,586	13,688	8,282	207,637	3,805
Sounds	613	4,615	1,306	133,011	1,379
Marlborough ..	3,430	6,110	2,219	472,006	1,980
Kaikoura ..	993	2,312	824	146,304	600
Collingwood ..	1,052	6,204	2,196	46,451	2,529
Waimea ..	4,316	12,497	5,022	214,249	6,163
Buller	452	3,860	1,599	2,074	714
Inangahua ..	411	6,393	1,434	24,284	17
Amuri	1,278	3,760	308	397,474	148
Cheviot	806	1,863	653	175,744	818
Grey	695	5,807	1,713	10,418	965
Westland ..	1,390	11,070	2,487	17,151	914
Ashley	7,815	14,850	6,434	747,148	7,298
Selwyn	14,754	26,300	14,716	672,825	16,948
Akaroa	2,604	18,726	5,320	223,410	2,916
Ashburton ..	8,677	9,166	3,643	752,308	4,892
Geraldine ..	4,248	6,469	2,358	..	2,686
Levels	3,272	5,251	2,261	692,463	1,306

TABLE SHOWING THE NUMBER OF HORSES, CATTLE, SHEEP, ETC.—*continued.*

County.	Horses, November, 1899.	Cattle, including Calves, November, 1899.	Dairy Cows, included in foregoing.	Sheep, including Lambs, April, 1899.	Pigs, November 1899.
Waimate ..	4,375	6,464	2,303	558,367	2,057
Mackenzie ..	1,359	2,016	676	393,935	264
Waitaki.. ..	6,083	16,069	6,240	519,475	2,906
Waihemo ..	1,295	3,974	1,498	118,682	557
Waikouaiti ..	1,424	8,873	5,064	77,316	2,052
Peninsula ..	812	7,044	4,383	4,007	1,179
Taieri	6,842	22,718	10,025	211,416	4,725
Bruce	3,404	9,701	3,396	160,409	1,878
Clutha	4,521	17,396	5,457	281,275	2,556
Tuapeka ..	3,633	6,950	2,500	371,706	1,145
Maniototo ..	2,216	6,192	1,623	308,963	533
Vincent.. ..	2,178	5,329	1,458	307,659	1,080
Lake	1,453	3,714	1,006	164,719	450
Southland ..	15,198	58,519	20,535	765,112	10,210
Wallace and Fiord	4,643	20,260	5,028	423,715	2,077
Stewart Island ..	9	252	91	1,031	5
Totals ..	261,931	1,210,439	343,556*	19,348,506	249,751

* Not including 39,887 heifers over two years old intended for dairying.

Live-stock in Australasian Colonies.

The following gives the number of the principal kinds of live-stock in the several Australasian Colonies for the year 1898–99 :—

Colonies.	Sheep.	Cattle.	Horses.	Pigs.
Queensland	17,552,608	5,571,292	480,469	127,081
New South Wales	41,241,004	2,029,516	491,553	247,061
Victoria	13,180,943*	1,833,900*	431,547*	337,588*
South Australia	5,012,620	260,343	161,774	60,132
South Australia (Northern Territory)	64,076	353,551	15,406	1,710
Western Australia	2,244,888	245,907	62,442	39,284
Tasmania..	1,493,638	148,558	29,797	45,274
	April, 1898.	Nov., 1898.	Nov., 1898.	Nov., 1898.
New Zealand	19,673,725	1,203,024	258,115	193,512

* As in 1894.

New Zealand thus takes second place in order for number of sheep, and fourth for the number of her cattle and horses.

Sheep.

The returns made to the Department of Agriculture show a smaller number of sheep for the years 1886 and 1891 than the census figures given previously, because the account was taken later in the year. The particulars are given for fourteen years, distinguishing the number for the North from that in the Middle Island.

According to these returns, the flocks of the North Island increased from 5,285,907 sheep in the year 1886 to 9,953,399 in 1899, or at the rate of over 88 per cent., while sheep in the Middle Island decreased from 9,888,356 to 9,395,107, a loss of 5 per cent. in the same period. For the North Island the increase during the fourteen years was 4,667,492 sheep, while in the Middle Island there was an actual loss of 493,249.

Year.	North Island.	Middle Island.	Total.
1886	5,285,907	9,888,356	15,174,263
1887	5,506,485	9,649,141	15,155,626
1888	5,668,996	9,373,202	15,042,198
1889	5,990,244	9,433,084	15,423,328
1890	6,588,346	9,527,767	16,116,113
1891	7,159,927	9,593,825	16,753,752
1892	8,204,029	10,366,723	18,570,752
1893	8,685,361	10,695,008	19,380,369
1894	9,169,352	11,061,477	20,230,829
1895	8,994,646	10,831,958	19,826,604
1896	9,131,736	10,006,757	19,138,493
1897	9,540,717	10,147,237	19,687,954
1898	9,864,945	9,808,780	19,673,725
1899	9,953,399	9,395,107	19,348,506

There was a decrease of 325,219 in the total number of sheep since April, 1898, by the above figures, but, notwithstanding this, an increase between 1891 and 1899 amounting to 2,594,754, or at a rate of 15·49 per cent. The export and local consumption of wool developed from 111,537,546 lb. for the year ended September, 1891, to 147,902,708 lb. for the corresponding year of 1899. The export of sheepskins and pelts, which in 1890 was 2,292,521 in number, rose to 4,960,054 in 1899.

Over a series of years the number of sheep has been well maintained, although the slaughter needed for the export of frozen mutton increased to upwards of three million three hundred thousand sheep and lambs in 1899.

The proportion of small flocks of sheep, until last year, increased very considerably, and with smaller flocks the rabbit difficulty is easier to master than with large ones.

NUMBER OF FLOCKS, 1886, 1891, 1896, AND 1899.

Size of Flocks.	1886.	1891.	1896.	1899.
Under 500	6,024	8,272	12,028	12,719
500 and under 1,000	1,189	1,691	2,605	2,656
1,000 " 2,000	747	969	1,460	2,519*
2,000 " 5,000	532	666	892	
5,000 " 10,000	263	287	340	363
10,000 " 20,000	228	239	231	204
20,000 and upwards	166	169	147	138
	9,149	12,293	17,703	18,599

	1899.
* From 1,000 to 2,500	1,880
" 2,500 to 5,000	639
	2,519

The average size of the flocks is found to have been 1,659 sheep for 1886, 1,363 for 1891, 1,081 in 1896, and 1,040 in 1899.

Of the provincial districts, that of Wellington had most sheep in 1899, Canterbury came next, and Otago occupied the third place. The full particulars, with increases or decreases since 1898, are:—

Provincial Districts.	No. of Sheep in 1899.	No. of Sheep in 1898.	Increase.	Decrease.
Wellington ..	4,070,737	4,054,075	16,662	..
Canterbury ..	4,040,456	4,072,687	..	32,231
Otago ..	3,715,485	3,961,459	..	245,974
Hawke's Bay ..	3,291,876	3,308,748	..	16,872
Auckland ..	2,082,121	2,015,142	66,979	..
Nelson ..	860,276	896,916	..	36,640
Marlborough ..	751,321	849,738	..	98,417
Taranaki ..	508,665	486,980	21,685	..
Westland ..	27,569	27,980	..	411
	19,348,506	19,673,725	Net dec. 325,219	

Six of the provincial districts show a decrease in the number of sheep in 1899 when compared with the previous year's returns, aggregating 430,545, for which loss Otago is accountable for 245,974, Marlborough for 98,417, Nelson for 36,640, Canterbury for 32,231, Hawke's Bay for 16,872, and Westland for 411. The other three provincial districts show increases (Auckland 66,979, Taranaki 21,685, and Wellington 16,662), and thus reduce the loss for the whole colony to 325,219, as shown above.

It has been estimated that the annual consumption of mutton in New Zealand is equivalent to 2·25 sheep per inhabitant, and that the number of sheep required in the present year (1900) for food will be about 1,800,000. (Maoris, for the purposes of this calculation, have been included.)

Two important advantages that sheep-farming has in New Zealand are mentioned by Mr. J. A. Johnstone in the Year-book for 1894. They are: (1) the low cost of the production of mutton, (2) the high percentage of natural increase. Respecting the first point, it has been proved beyond all doubt that, under ordinary conditions, the very choicest of mutton can be so produced as to pay the grower handsomely when sold at 2d. per pound for the carcase at the nearest shipping-port. To the British sheep-farmer this statement, of course, is valueless by itself; but, when told that this mutton would cost the London butcher, delivered *ex* steamer at the dock, only 3½d. per pound, he will be able to realise in some measure what a wonderful grazing-country New Zealand is, and to understand how it is that settlers of the right stamp have done so well. Then, with regard to the high percentage of increase, there need only be cited a few average returns from well-known flocks to show what excellent lambings New Zealand farmers obtain under good management.

Lambing Returns.—Averages.

Locality.	Breed of Flock.	Breed of Rams.	Breed of Ewes.	No. of Ewes.	Percentage of Lambs.	Remarks.
North Island ..	Lincoln	Lincoln	Lincoln	7,517	81·04	Land merely surface-sown in English-grass pasture.
〃 ..	〃	〃	〃	5,301	85·05	
〃 ..	〃	〃	⅞ Lincoln	12,177	100·00	
〃 ..	Romney	Romney	Romney	1,141	96·17	
〃 ..	Lincoln	Southd'n	Lincoln	2,033	94·71	
Middle Island	Merino	Merino	Merino	14,765	75·36	Mountainous country in n'tive past're, unimproved.
〃 ..	〃	B. Leic'str	〃	4,235	88·94	
〃 ..	Cross-bred	〃	Cross-bred	8,624	80·82	In English-grass pasture.
〃 ..	Half-bred	〃	Half-bred	2,747	82·79	
〃 ..	B. Leic'str	〃	B. Leic'str	778	90·77	
〃 ..	Lincoln	Lincoln	Lincoln	452	88·08	
〃 ..	R. Marsh	R. Marsh	R. Marsh	253	111·46	
〃 ..	E. Leic'str	E. Leic'str	E. Leic'str	464	93·34	
〃 ..	Shropshire	Shropshire	Shropshire	168	97·41	
〃 ..	Southd'n	Southd'n	Southd'n	114	96·87	

The above returns are fair average ones, but much higher might have been shown if exceptional cases had been selected.

As showing the actual cost of managing two large estates in New Zealand (Middle Island), No. 1 carrying 20,000 cross-bred sheep, and No. 2 carrying 40,000, the subjoined table may prove interesting:—

	No. 1. Per Head.	No. 2. Per Head.
	s. d.	s. d.
Cost of shearing, including scouring and putting wool f.o.b.	0 6·5	0 6·3
Management, shepherding, dipping, &c..	0 10	0 9·6
Cost of providing special feed (turnips, green feed, chaff, &c.)	1 1	1 6·3
Cost of renewing English grass ..	2 0	1 5
Total per head	4 5·5	4 3·2

Cattle.

The increase of cattle between 1891 and 1896 was 216,070, or at the rate of 25·98 per cent. The rapid development of the butter and cheese industry, represented in great part by the export figures given in the comparative table on page 203, created a requirement for milch cows, which increased in number from 206,906 in 1891 to 276,217 in 1896, or at the rate of 33·50 per cent.

The cattle as enumerated in 1899–1900 for each provincial district are given in the next table. Here is shown the substantial increase of 7,415 head of all classes over the number returned in 1898–99, and of no less than 12,258 in the number of cows and heifers for dairy purposes.

Provincial District.	Bulls for Stud Purposes.	Steers over Two Years Old.	Cows and Heifers for Dairy Purposes.	Cows and Heifers for Breeding Purposes.	Cows and Heifers for Fattening.	Steers and Heifers under Two Years not otherwise enumerated.	Totals.
Auckland	5,033	72,833	80,701	45,557	15,327	116,323	335,774
Taranaki	3,344	31,186	77,458	5,785	6,975	77,559	202,307
Hawke's Bay ..	1,457	25,084	14,995	25,899	2,930	26,743	97,108
Wellington ..	8,958	40,589	72,527	36,648	9,039	71,765	234,526
Marlborough ..	248	1,558	4,649	1,128	705	4,749	13,037
Nelson	612	5,882	12,680	1,499	2,705	11,249	34,577
Westland	226	4,045	4,952	1,509	1,206	4,939	16,877
Canterbury ..	1,579	12,538	40,258	1,830	5,664	27,373	89,242
Otago	3,297	28,894	75,223	13,992	8,490	57,095	186,991
Totals, 1899-1900..	19,754	222,559	383,443*	133,847	53,041	397,795	1,210,439
" 1898-1899..	18,678	214,822	371,185*	127,308	61,035	409,996	1,203,024
Increase ..	1,076	7,787	12,258	6,539	-7,994 †	-12,201 †	7,415

* Including heifers over two years old intended for dairying: 39,887 in 1899-1900, and [illegible] in 1898-99. For actual number of dairy cows in each county see table on pages 340-42.
† Decrease.

Classified according to breed, the numbers for the two years under review are:—

	1899-1900.	1898-99.
Pure bred—		
Shorthorn	50,417	44,742
Hereford	4,801	6,602
Polled Angus	8,205	9,434
Ayrshire	5,395	5,241
Jersey	3,540	3,096
Other pure breds	2,623	2,734
Crosses	1,135,958	1,131,175
Totals	1,210,439	1,203,024

[illegible] a total of 1,210,439 cattle in the colony, the North Island [illegible] have had 869,715, or 72 per cent., while the Middle [illegible] had 340,724, or 28 per cent. Similarly, the dairy cows [illegible] intended for dairying in the North Island numbered [illegible] and in the Middle Island 137,762.

[illegible] North Island, which now leads as regards number of [illegible] nearly twice as many dairy cows and other cattle [illegible] Island.

[illegible] number of cattle (1,210,439) given above, 343,556 [illegible] is found impossible to give a statement of the [illegible] butter and cheese made, even at the factories [illegible] said is that there were in October, 1899, [illegible] factories and creameries, with 171 skimming-stations, reported to the Department of Agriculture. But very few of these factories made any return to the department of their output for the previous year, and it is therefore impossible to arrive at the total quantity of cheese and butter made. The census returns for 1896 show there were in that year only 170 factories and 105 creameries, the annual output at that time amounting to 11,336,776 lb. of butter and 4,323 tons of cheese.

Horses.

The increase in horses is shown for three census years:—

Census Years.	Number of Horses.	Numerical Increase.	Increase per Cent.
1886	187,382	23,658	12·63
1891	211,040	26,378	12·50
1896	237,418		

At the enumeration made in 1899–1900 (November to January), the number of horses was found to have increased to 262,390 (including 459 mules and asses), for which particulars are given. It will be seen that the Provincial District of Auckland had by far the most horses, Otago and Canterbury following, Wellington taking fourth place.

Provincial District.	Entires.	Geldings.	Mares over Two Years old.	Mares with Foal at Foot, or to foal this Season.	Colts and Fillies under Two Years old.	Totals.
Auckland ..	682	33,027	21,744	5,462	8,381	69,296
Taranaki ..	122	7,997	6,558	1,274	1,532	17,483
Hawke's Bay ..	210	8,543	6,131	1,524	1,941	18,349
Wellington ..	345	19,549	14,838	2,841	3,322	40,895
Marlborough ..	39	2,320	1,798	383	496	5,036
Nelson	90	3,954	2,976	548	755	8,323
Westland ..	33	959	698	164	239	2,093
Canterbury ..	367	22,217	17,270	2,908	4,407	47,169
Otago	357	24,279	20,097	3,674	5,339	53,746
Totals, 1899–1900	2,245	122,845	92,110	18,778	26,412	262,390*
„ 1898–99	2,264	119,959	91,050	17,835	27,541	258,649*
Increase ..	..	2,886	1,060	943	..	3,741
Decrease ..	19	..	..	..	1,129	..

* Including 459 mules and asses in 1899–1900, and 534 in 1898–99.

Classified according to breed, the numbers for the two years under review are:—

	1899–1900.	1898–99.
Thoroughbred	5,660	5,617
Hunter and hackney	27,540	27,936
Carriage and trotting	16,871	16,776
Light ordinary	107,240	106,347
Draught	93,300	90,349
Ponies under 14 hands	11,320	11,090
Mules and asses	459	534
Totals	262,390	258,649

It has long been expected that the export of New Zealand horses to Australia and India would assume large proportions. So far, however, the trade has not developed to the extent anticipated. The opinion has been often expressed that more might be done than has been in the past. The following figures will show the position for the years [illegible], [illegible], and [illegible] to [illegible]:—

Exported to	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Victoria	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New South Wales	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	71
Tasmania	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fiji	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4
Bengal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Brazil	..	..	..	..		..	..
South Sea Islands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	6
United Kingdom	..	..	[illegible]	[illegible]	[illegible]	[illegible]	2
United States of America (W. Coast)	[illegible]	..	[illegible]	..	..	..	1
Natal	..	..	..	..	..	..	2
Singapore	..	..	..	..	..	..	1
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	220	[illegible]

Pigs.

Pigs have decreased since 1891, when the number was 308,812, against 249,751 in 1899-1900. The figures given in the accompanying table are those compiled by the Agricultural Department, and for 1900 show an increase of 56,239 in the total number of pigs kept in the previous year. The Auckland Provincial District has far more pigs than any other.

NUMBER OF PIGS IN EACH PROVINCIAL DISTRICT.

Provincial District.	Boars for Stud Purposes.	Barrows and Sows over One Year old, for Fattening.	Sows kept solely for Breeding Purposes.	Barrows and Sows under One Year old.	Totals.
Auckland ..	2,081	12,480	9,990	44,864	69,415
Taranaki ..	765	3,151	4,991	28,430	37,337
Hawke's Bay ..	268	1,456	1,779	6,603	10,106
Wellington ..	1,205	4,234	7,577	33,930	46,946
Marlborough ..	112	377	660	2,810	3,959
Nelson ..	222	837	1,480	7,850	10,389
Westland ..	62	325	265	1,227	1,879
Canterbury ..	719	2,011	5,444	30,193	38,367
Otago ..	707	3,422	4,605	22,619	31,353
Totals, year 1900	6,141	28,293	36,791	178,526	249,751
„ year 99	4,476	25,759	26,203	137,074	193,512
Increase ..	1,665	2,534	10,588	41,452	56,239

The approximate numbers of the different breeds were:—

	1899-1900.	1898-99.
Pure Berkshire	36,942	27,695
Pure Yorkshire	4,643	3,696
Other pure-breds	850	711
Crosses	207,316	161,410
Totals	249,751	193,512

Ostrich-farming.

Ostrich farming has been attempted in New Zealand, both in Canterbury and Auckland. (See Year-book, 1897, page 313, and also special article in Part III. of Year-book of 1899, entitled "The Heir of the Moa.")

SECTION XVII.—AGRICULTURE.

UNTIL 1895 the agricultural statistics were collected and compiled by the Registrar-General, under authority of "The Census Act, 1877," annually in the month of February, except in census years, when the collection was made with the enumeration of the people. Under this Act statistics of the acreage in grass and in all kinds of cultivation were taken; and, at the same time, the estimated yields of all the principal crops were obtained from the farmers themselves.

By the Agricultural and Pastoral Statistics Act, passed in 1895, the duty of collecting the returns devolved upon the Department of Agriculture. The plan now adopted under the Act of 1895 is similar to that used in the United Kingdom, the account of land laid down in crop being made up much earlier than formerly, while estimates of produce are made after the results of threshing are known.

Statistics of the land in cultivation were accordingly collected in November, 1899, and an interim return of the compiled results was published in detail in the *New Zealand Gazette* of the 30th January, 1900, while the corrected acreages under each description of crop were made public on the 30th April following. A summary of the particulars then given is shown in the accompanying tables, with the finally corrected statements of yield of the principal crops; but, in comparing these figures with the results obtained in former years, it must be remembered that, under the new Act, statistics of the acreage and crops of land held and cultivated by Maoris are included; whereas previously information about the farming carried on by Maoris was obtained only when a census of the Native race was taken.

Full remarks on the progress of agriculture in New Zealand, in respect of all its features in detail, are supplied by Mr. Murphy, of Christchurch, in the special article devoted to the subject, which appears as the first of Section II. in Part III.

ACREAGE AND ACTUAL YIELD IN PRINCIPAL CORN-CROPS, 1900.

Provincial Districts.	WHEAT.			OATS.			BARLEY.			RYE.			MAIZE.		
	Acres.	Yield per Acre, in Bushels.	Total Bushels.	Acres.	Yield per Acre, in Bushels.	Total Bushels.	Acres.	Yield per Acre, in Bushels.	Total Bushels.	Acres.	Yield per Acre, in Bushels.	Total Bushels.	Acres.	Yield per Acre, in Bushels.	Total Bushels.
Auckland	5,197	22·26	115,696	7,952	29·65	235,808	1,026	32·69	33,535	87	19·38	1,686	16,300	39·00	6 5,700
Taranaki	1,273	40·59	51,673	6,289	47·21	296,924	682	37·00	25,231	27	12·50	337	251	22·50	5,647
Hawke's Bay ...	1,437	26·87	38,607	5,299	37·03	196,231	2,459	39·79	97,843	44	30·00	1,320	678	36·72	24,896
Wellington ...	9,829	30 43	299,147	22,664	41·99	951,678	1,152	36·85	42,457	172	19·75	3,397	185	19·75	3,653
Marlborough ...	5,402	24·59	132,835	3,400	36·44	123,896	6,893	29·77	205,204	115	21·10	2,415	...	..	...
Nelson	3,503	23·23	81,369	5,146	33·00	169,815	4,753	24·74	117,571	54	22·00	1,188	12*	...	...
Westland	...	...	...	21*	...	...	1*	...	...	...	...	...	...	...	...
Canterbury ...	181,648	31·35	5,694,593	137,429	40·15	5,517,880	18,060	35·71	644,845	317	23·50	7,451	3*	...	...
Otago	61,460	35·27	2,167,978	210,043	42·05	8,833,600	12,977	32·24	418,459	1,265	27·21	34,420	...	...	...
Totals	269,749	31·81	8,581,898	398,243	40·99	16,325,832	48,003	33·02	1,585,145	2,081	25·09	52,214	17,429	38·44 †	669,896 †

* Not included in calculating the average yield for the colony. † Estimate only.

NUMBER OF ACRES UNDER CULTIVATION IN EACH PROVINCIAL DISTRICT, 1900

Provincial Districts	In Grass or Clover, sown after land ploughed.	In Grass, surface-sown: land not ploughed.	In Hay, included in either or both of the previous Columns.	In Bare Fallow.	In Grain-crops (for threshing only).	In Green and other Crops.	In Garden.	In Orchard or Vineyard.	Total in Grass, Crop, and Fallow.	In Plantations of Forest-trees.	Tussock or Native Grass, and unimproved.
Auckland ..	524,549	1,269,932	10,769	17,250	30,799	84,326	3,028	10,611	1,940,495	9,556	3,113,727
Taranaki ..	131,328	569,893	6,586	454	8,670	16,352	1,036	807	728,540	954	268,465
Hawke's Bay ..	359,944	1,354,731	9,841	9,466	10,204	28,253	1,234	1,470	1,765,302	4,109	1,520,801
Wellington .	254,869	2,161,363	10,936	1,862	35,180	62,209	2,524	3,541	2,521,548	3,916	1,137,716
Marlborough ..	91,292	200,570	2,158	1,697	16,975	13,866	215	428	325,043	1,266	1,827,821
Nelson ..	109,096	277,594	3,147	1,127	14,085	29,314	498	2,161	433,875	1,596	1,558,749
Westland ..	10,352	38,043	999	3	22	1,496	59	232	50,207	3	609,924
Canterbury ..	1,419,466	350,405	14,942	14,249	343,946	273,369	4,506	2,965	2,408,906	22,874	3,959,826
Otago ..	1,436,698	293,177	8,856	32,643	285,804	287,588	3,790	2,186	2,341,886	4,668	7,860,880
Totals ..	4,337,594	6,515,708	68,234	78,751	745,685	796,773	16,890*	24,401†	12,515,802	48,942	21,857,909

* 13,492 acres private garden; 3,398 acres market garden. † 23,956 acres orchard; 445 acres vineyard.

ACREAGE UNDER SOWN GRASSES, AND CULTIVATION GENERALLY, FOR EACH COUNTY, AS ON THE 15TH NOVEMBER, 1899.

Counties.	In Sown Grasses, after having been ploughed.	In Sown Grasses, not previously ploughed.	Land broken up but not under Crop.	Total under Crop.	In Garden.	In Orchard.	Plantations of Forest Trees.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Mongonui	6,085	10,334	265	1,231	30	146	5
Whangaroa	845	3,123	20	125	19	83	2
Hokianga	600	18,808	6	977	126	260	57
Bay of Islands	5,525	25,160	278	846	102	212	14
Hobson	2,272	59,417	1,204	1,909	180	291	254
Whangarei	21,960	74,853	161	2,349	64	1,071	32
Otamatea	5,026	57,287	256	622	68	302	60
Rodney	8,341	70,348	566	969	129	1,062	100
Waitemata	20,240	30,091	1,250	1,883	270	1,883	210
Eden	15,322	5,456	156	1,696	954	561	339
Manukau	103,596	80,588	7,829	21,197	265	1,426	767
Coromandel	2,868	5,886	80	201	65	75	1
Thames	4,797	7,998	27	1,053	120	390	20
Ohinemuri	4,922	8,050	82	1,132	81	118	16
Piako	109,822	50,323	2,809	21,710	55	246	1,111
Waikato	48,513	32,394	1,185	9,740	74	544	4,814
Waipa	58,712	5,530	175	12,363	66	544	1,051
Raglan	12,770	71,022	64	3,424	53	191	84
Kawhia	20,660	20,483	..	1,772	1	58	28
Taupo, East and West	8,345	7,599	100	1,619	17	32	88
Rotorua	1,213	2,952	38	457	12	35	59
Tauranga	23,815	22,862	232	8,765	90	456	156
Whakatane Opotiki	12,544	19,294	88	10,369	42	108	23
Waiapu	1,013	160,486	5	998	13	62	4
Cook	24,743	419,588	424	7,718	132	455	261
Wairoa	17,084	229,327	204	2,317	63	91	162
Hawke's Bay	176,404	419,145	2,257	19,755	680	723	1,543
Waipawa	103,312	361,154	6,767	12,341	388	375	1,637
Patangata	63,144	345,105	238	4,044	103	281	767
Taranaki	44,609	135,632	184	6,988	324	379	219
Hawera	39,922	148,578	123	9,222	454	98	289
Patea	35,837	112,766	135	5,423	121	195	434
Clifton	9,582	42,590	5	2,291	93	96	5
Stratford	1,378	130,327	7	1,098	44	39	7
Waitotara	24,381	74,297	193	5,152	155	210	191
Wanganui	16,149	158,481	139	5,109	156	354	250
Rangitikei	51,610	208,130	146	17,250	202	322	967
Oroua	13,796	157,662	68	14,571	323	736	399
Kiwitea	935	131,906	..	2,574	38	180	23
Pohangina	394	69,802	..	767	35	118	3
Manawatu	50,644	49,834	40	15,411	140	152	373
Horowhenua	3,082	123,534	40	3,166	210	296	57
Pahiatua	1,553	127,718	36	1,459	200	109	40
Wairarapa North	24,680	367,068	217	12,522	238	281	461
Akitio	1,073	82,686	19	217	69	15	14
Eketahuna	65	53,128	16	410	92	80	5
Mauriceville	399	35,101	..	108	16	24	6

ACREAGE UNDER SOWN GRASSES, ETC.—*continued.*

Counties.	In Sown Grasses, after having been ploughed.	In Sown Grasses, not previously ploughed.	Land broken up but not under Crop.	Total under Crop.	In Garden.	In Orchard.	Plantations of Forest Trees.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wairarapa South ..	57,807	359,885	945	16,619	224	318	979
Hutt	8,301	162,131	3	2,054	426	346	148
Sounds	2,642	78,696	34	1,334	47	116	13
Marlborough ..	58,743	82,302	1,533	26,664	143	276	1,007
Kaikoura	29,907	39,572	130	2,843	25	36	246
Collingwood ..	3,397	29,327	14	1,255	25	208	30
Waimea	29,786	143,776	520	22,232	281	1,700	236
Buller	1,035	6,434	2	160	54	109	..
Inangahua ..	3,467	34,214	23	954	10	76	1
Amuri	53,161	52,758	357	7,692	64	37	1,051
Cheviot	18,250	11,085	211	11,106	64	31	278
Westland	4,601	21,135	3	889	20	102	3
Grey	5,751	16,908	..	629	39	130	..
Ashley	237,466	105,741	2,696	92,498	718	430	2,194
Selwyn	281,597	21,222	1,874	143,123	1,994	1,236	5,896
Akaroa	27,269	140,895	20	5,423	77	314	407
Ashburton ..	389,424	16,296	2,390	174,799	790	321	9,747
Geraldine	129,396	10,790	3,095	60,920	225	263	2,055
Levels	86,203	1,497	506	43,023	356	260	1,061
Waimate	207,672	35,463	2,960	81,991	264	136	740
Mackenzie ..	60,439	18,501	708	15,538	82	5	774
Waitaki	195,220	27,770	2,313	79,257	419	258	1,288
Waihemo	29,891	7,108	1,040	11,984	89	59	118
Waikouaiti ..	15,496	48,344	334	6,866	72	114	119
Peninsula	1,929	14,614	1	938	70	87	121
Taieri	82,733	18,738	453	32,403	683	321	443
Bruce	100,612	9,459	1,434	42,034	185	79	384
Clutha	171,167	33,752	1,822	57,771	336	75	350
Tuapeka	180,800	29,773	2,500	35,835	294	306	217
Maniototo	38,947	4,529	1,300	20,289	225	22	200
Vincent	17,184	2,130	2,124	13,224	95	164	93
Lake	10,538	4,136	4,876	12,005	100	71	172
Southland	447,187	45,593	12,621	198,669	983	544	848
Wallace and Fiord ..	144,959	46,915	1,825	62,107	226	82	314
Stewart Island ..	35	316	..	10	13	4	1
Total	4,337,594	6,515,708	78,751	1,542,458	16,890	24,401	48,942

The extent of land in cultivation (including sown grasses and land broken up but not under crop) amounted to 12,515,802 acres. Of this area, land under artificial grasses comprised 86·72 per cent.; land under grain-crops, 5·96 per cent.; land under root and green crops, 6·36 per cent.; land in garden and orchard, 0·33 per cent.; and land in fallow, 0·63 per cent. Full details for the last thirteen years are tabulated.

NUMBER OF ACRES IN GRASS, UNDER EACH CLASS OF CROP, AND IN BARE FALLOW, 1888 TO 1900.

Year.	In Grass or Clover, sown after land ploughed.	In Grass or Clover, surface-sown: land not ploughed.	In Hay, included in either or both of the previous Columns.	In Bare Fallow.	In Grain-crops (for threshing only).	In Green and other Crops.	In Garden.	In Orchard or Vineyard.	Total in Grass, Crop, Fallow, Garden, and Orchard.	In Plantations of Forest-trees.
1888	2,884,007	3,053,052	67,812	154,266	738,603	454,824	8,608	16,329	7,309,689	28,565
1889	2,941,888	3,337,423	50,656	142,747	793,866	454,243	8,561	15,246	7,693,974	33,938
1890	3,027,912	3,497,137	45,889	149,979	826,505	513,893	8,568	15,771	8,039,765	28,928
1891	3,250,543	3,715,675	44,045	210,509	703,329	582,439	9,810	17,047	8,489,352	35,810
1892	3,327,755	4,076,126	46,652	140,454	769,778	579,112	9,608	19,627	8,922,460	38,728
1893	3,611,393	4,650,652	61,811	154,254	753,091	544,355	9,763	20,085	9,743,593	40,401
1894	3,865,348	4,833,549	60,740	142,342	669,850	551,962	9,951	21,109	10,094,111	39,826
1895	3,908,581	4,921,136	56,614	140,494	560,179	597,686	10,263	21,401	10,159,740	55,386
1896	4,254,983	5,030,247	96,818	58,039	674,850	680,750	17,749	19,362	10,735,980	43,246
1897	4,308,720	5,733,138	109,466	57,158	688,297	762,762	16,924	22,291	11,589,290	47,630
1898	4,123,304	5,743,245	67,865	60,792	727,038	790,184	16,177	22,387	11,483,127	52,546
1899	4,065,860	6,178,879	75,620	51,164	892,468	796,235	16,930	22,983	12,024,519	47,216
1900	4,337,594	6,515,708	68,234	78,751	745,685	796,773	16,890	24,401	12,515,802	48,942

Wheat.

The wheat harvest of 1900 showed an average yield of 31·81 bushels per acre, the crop realised being 8,581,898 bushels, against 13,073,416 bushels in 1899, 5,670,017 bushels in 1898, 5,926,523 bushels in 1897, 6,843,768 bushels in 1896, 3,613,037 bushels in 1895, 4,891,695 bushels in 1894, 8,378,217 bushels in 1893, and 10,257,738 bushels in 1892.

The quantity of wheat of last season's harvest held by farmers in November, 1899, as shown by the gazetted figures, was 5,036,373 bushels, an amount which, exclusive of stocks of grain and flour held by merchants and millers, is more than sufficient to meet demands for consumption in the colony for a whole year. The total amount of wheat exported during the year 1899 was 2,901,676 bushels, while the imports were only 434 bushels, most probably for seeding purposes.

The imports of flour during 1899 were 2,909 centals (145 tons), and the exports 1,643 tons.

The area under wheat for threshing decreased from 399,034 acres in 1899 to 269,749 acres in 1900 ; and this decrease of 129,285 acres was shared by all the provincial districts. In addition to the area cut for threshing, 408 acres were cut for chaff, and 20 acres for ensilage, while 265 acres were fed down with stock, so that the total area sown in wheat was 270,442 acres.

Of the 269,749 acres in wheat (for threshing) this year, no less than 181,648 acres were in Canterbury, and 61,460 acres in Otago.

The area under wheat for grain, the estimated gross produce in bushels, and the average yield per acre for each of the last ten years were :—

Year.	Land under Wheat.	Estimated Gross Produce.	Average Yield per Acre.
	Acres.	Bushels.	Bushels.
1891	301,460	5,723,610	18·99
1892	402,273	10,257,738	25·50
1893	381,245	8,378,217	21·98
1894	242,737	4,891,695	20·15
1895	148,575	3,613,037	24·32
1896	245,441	6,843,768	27·88
1897	258,608	5,926,523	22·92
1898	315,801	5,670,017	17·95
1899	399,034	13,073,416	32·76
1900	269,749	8,581,898	31·81

The following gives the area in wheat and the estimated produce, for the Australian Colonies, for the season of 1899:—

Colony.	Wheat-crop.		
	Acres.	Bushels.	Bushels per Acre.
Queensland	46,219	607,012	13·13
New South Wales	1,319,503	9,286,216	7·04
Victoria	2,154,163	19,581,304	9·09
South Australia	1,788,770	8,778,900	4·90
Western Australia..	74,732	864,909	11·57
Tasmania	85,287	2,303,512	27·01

Consumption of Wheat.

The yearly consumption of wheat per head of population in New Zealand, as previously stated, has been estimated at 6 bushels.

The difficulty of correctly computing the consumption of bread-stuffs is shown by the great differences in the estimates arrived at.

The average quantity required per head of the population (exclusive of that used for seed) has been calculated at 6·4 bushels for New South Wales, and 4½ to 5 bushels for Victoria, by statisticians in those colonies.

The average consumption of wheaten bread-stuffs in New Zealand thus appears to be somewhat higher than in Victoria.

The following is the average annual consumption of wheat per inhabitant in some of the principal countries of the world:—

United Kingdom	5·6 bushels.
Canada	6·6 "
France	8·1 "
Germany	3·0 "
Russia	2·1 "
Italy	5·4 "
United States	4·5 "

The English consumption during the last twenty-five years appears to have ranged from 5½ to 6 bushels per head of population.

Wheat-crop of the World.

In the next table the wheat crop of the world for the five years 1893 to 1897 is shown, and from this it will be seen that the importance of Australasia in the wheat market of the world is not great: out of a total production of about 2,245 million bushels in 1897, only thirty-four million bushels, or 1·5 per cent., were grown in the Australasian Colonies:—

WHEAT-CROP OF THE WORLD FOR THE YEARS 1893 TO 1897 INCLUSIVE.

Country.	1893.	1894.	1895.	1896.	1897.
	1,000 Bushels.	1,000 Bushels.	1,000 Bushels.	1,000 Bushels.	1,000 Bushels.
Europe—					
Russia and Poland ..	359,873	383,862	333,479	343,877	292,000
France	277,980	343,113	348,280	335,881	248,000
Hungary	149,069	152,305	152,345	143,949	102,000
Italy	130,355	117,958	111,960	131,953	96,000
Germany	109,562	110,359	102,363	103,964	100,000
Spain	83,968	103,964	103,964	79,972	96,000
Roumania ..	58,379	42,386	65,978	68,975	40,000
United Kingdom ..	50,383	59,176	37,986	57,978	54,000
Bulgaria	33,986	35,988	45,982	49,982	32,000
Caucasia	65,177	59,980	63,976	43,984	28,000
Turkey	31,988	27,988	35,988	39,984	28,000
Austria	42,396	47,183	40,385	35,988	34,000
Belgium	16,793	18,394	18,394	19,992	20,000
Servia	8,797	7,996	9,998	13,994	6,800
Greece	7,996	7,199	5,998	5,998	5,200
Holland	5,598	4,797	5,197	5,998	5,200
Switzerland ..	4,400	5,197	4,797	4,797	4,000
Denmark	4,477	4,000	4,400	4,000	4,000
Norway-Sweden ..	3,600	3,600	4,400	4,000	4,000
Portugal	5,598	6,799	5,598	4,000	6,000
Totals ..	1,450,375	1,542,244	1,501,468	1,499,266	1,205,200
America—					
United States ..	455,838	511,818	495,822	447,842	560,000
Canada	47,984	43,984	53,982	33,986	56,000
Mexico	11,195	11,996	11,996	9,998	12,000
Argentine	82,371	59,980	45,982	31,988	48,000
Chili	17,994	13,193	13,594	11,996	16,000
Uruguay	6,398	7,996	9,998	5,998	8,000
Totals ..	621,780	648,967	631,374	541,808	700,000
Asia—					
India	267,104	252,710	255,108	204,729	192,000
Asia Minor ..	31,988	27,988	31,988	35,988	48,000
Persia	15,992	17,994	19,992	19,992	20,000
Syria	11,996	9,998	9,998	11,996	12,000
Totals ..	327,080	308,690	317,086	272,705	272,000
Africa—					
Algeria	14,795	19,992	17,994	19,992	16,000
Egypt	9,998	9,998	9,998	7,996	8,000
Tunis	3,400	5,998	5,598	5,197	4,800
Cape Colony ..	4,397	4,797	4,797	4,397	4,800
Totals ..	32,590	40,785	38,387	37,582	33,600

WHEAT-CROP OF THE WORLD—*continued.*

Country.	1893.	1894.	1895.	1896.	1897.
	1,000 Bushels.	1,000 Bushels.	1,000 Bushels.	1,000 Bushels.	1,000 Bushels
Australasia—					
New South Wales ..	6,503	7,041	5,195	8,854	10,560
Victoria	15,255	11,446	5,669	7,076	10,580
Queensland ..	413	545	124	601	1,009
South Australia ..	13,618	7,781	5,929	2,804	4,015
Western Australia ..	520	170	188	244	409
Tasmania.. ..	834	872	1,165	1,286	1,668
New Zealand ..	4,892	3,613	6,844	5,927	5,670
Totals ..	42,035	31,468	25,114	26,792	33,911
Grand Totals ..	2,473,860	2,572,154	2,513,429	2,378,153	2,244,711

Oats.

The extent of land in oats grown for grain in 1900 was 398,243 acres, against 417,320 acres in the preceding year, a decrease of 19,077 acres. The Provincial Districts of Otago (210,043 acres) and Canterbury (137,429 acres) account for 347,472 acres of the total area, Wellington taking third place with 22,664 acres. The breadth of land in oats for chaffing, ensilage, or feeding down with stock was 193,452 acres, a decrease of 21,156 acres on the figures for 1899.

The average yield per acre was, in 1899, 39·56 bushels, and in 1900, 40·99, the quantity of produce decreasing from 16,511,388 bushels to 16,325,832 bushels.

The oat-crop for 1899 in the Australian Colonies was as follows:—

	Acres.	Bushels.	Average per Acre.
Queensland	271	4,047	14·93
New South Wales ..	19,874	278,007	13·99
Victoria	266,159	5,523,419	20·75
South Australia ..	25,823	304,002	11·77
Western Australia ..	3,072	55,854	18·18
Tasmania	59,509	2,271,070	38·16

Maize.

This is a very important crop. In 1900 there were 17,429 acres sown for grain, the estimated yield being 669,896 bushels of corn, an average of more than 38 bushels per acre. Maize is grown only in the North Island, with the exception of a few acres in Nelson and Canterbury. The Provincial District of Auckland had 16,300 acres; Hawke's Bay, 678 acres; Taranaki, 251 acres; and Wellington, 185 acres, in 1900. As considerable interest is taken in this crop, the group of counties where it is chiefly grown is stated, viz.: Hobson, Manukau, Rodney, Whangarei, Mongonui, Hokianga, Tauranga, Whakatane, Cook, Wairoa, and Hawke's Bay. Small acreages are found in all the counties of the Auckland, Taranaki, and Hawke's Bay districts and in most of the counties in Wellington.

Barley.

Under barley, 48,003 acres were returned in 1900, the estimated crop being 1,585,145 bushels, an average yield per acre of 33·02 bushels. In 1899 the area under barley was 45,671 acres, and the yield 1,677,908 bushels, or 36·73 bushels per acre.

Rye.

There were 2,081 acres in rye, yielding 52,214 bushels, or at the rate of 25·09 bushels per acre, against 2,946 acres and 65,999 bushels, the rate being 22·44 bushels per acre, in 1898–99.

Peas and Beans.

The area under peas for threshing in the season 1900 was 7,086 acres, yielding 241,090 bushels, or an average of 34·02 bushels per acre, against 6,334 acres and 178,420 bushels, or 28·17 bushels per acre, in the previous year.

Under beans there were 3,094 acres, giving a return of 115,488 bushels, the average being 37·33 bushels per acre, against 2,624 acres and 96,574 bushels (37·31 bushels per acre) in 1899.

Potatoes.

The area under potatoes was 36,984 acres in 1900, yielding the excellent return of 222,124 tons, or a rate of 6 tons per acre, against 38,604 acres in 1899, and 298,561 tons (or 7·73 tons per acre), a decrease of 1,620 acres and 76,437 tons.

A comparison of the gross yield of potatoes with the amount exported in each of the twelve years, 1883–94, showed that for such period an average of 597 lb. per head of population was retained in the colony. Allowing for waste, pig-feed, and seed, the average amount retained for human consumption was found to be 449 lb. a head. The surplus crop of 1899–1900 available for export might possibly amount to sixty thousand tons.

Turnips.

Turnips and rape form a most important crop in a sheep-breeding country such as New Zealand, and in 1892 the area of land under this crop amounted to 422,359 acres. The returns for 1895 gave only 385,788 acres, but for the present year 540,829 acres (415,462 acres in turnips and 125,367 in rape) were set down as under these crops, and there were in addition 10,421 acres in mangolds (8,051), beet (615), and carrots (1,755).

The cost of growing turnips sown broadcast and in drills may be: Broadcast—Ploughing, 5s. 6d. per acre; harrowing, 3s. per acre; rolling, 1s. per acre; seed and sowing, 1s. 6d. per acre: total, 11s. per acre. Drill—Ploughing, 5s. 6d ; grubbing, 3s.; harrowing, 3s.; rolling, 1s.; drilling, 3s. 6d.; hand-hoeing, 10s.; horse-hoeing, 5s.; seed and sowing, 2s. 6d.; manure, 10s. to 15s.: total, £2 3s. 6d. to £2 8s. 6d. per acre.

Hops.

There were 994 acres under hops in 1900, as against 947 acres last year. No account of the produce for the last five years was taken, but in 1895 the yield was 7,556 cwt. In 1895 the total quantity used by the breweries in the colony amounted to 3,793 cwt. Of the land under hops in 1900, 835 acres were in the Waimea County, and 135 in Collingwood, both in the Provincial District of Nelson. The import of hops in 1899 amounted to 1,195 cwt., and the exports to 6,301 cwt., of which 6,228 cwt. were the produce of the colony.

Tobacco.

The growing of tobacco does not progress in New Zealand. In 1889, 34 acres were being cultivated; in 1890, 25 acres; in 1891, 16 acres; in 1892, 6 acres; in 1893, 4 acres; in 1894, 4 acres; and in 1895, 5 acres, producing 1,599 lb. of dried leaf. Statistics of this crop have not been taken since 1895.

Gardens and Orchards.

The extent of land in garden was 16,890 acres, of which 13,492 acres were private gardens, and 3,398 acres market gardens. In plantations of forest-trees there were 48,942 acres.

There were 23,956 acres in orchard in 1900, an increase of 1,330 acres on the area so returned in the previous year, and 445 acres were returned as "vineyard." The fruit-crop of the colony is supplemented by a considerable import from the Australian Colonies and Fiji.

Sown Grasses and Seeds.

New Zealand is essentially suited for grazing purposes. Wherever there is light and moisture, English grasses thrive when the natural bush and fern are cleared off. In fact, the white clover gradually overcomes the fern; and, from the mildness of the winter season, there are few places where there is not some growth, even in the coldest months of the year. In all parts of the colony stock live, although in varying condition, without other food than such as they can pick up. Sown grass land, as might be expected, heads the list of cultivations.

At the beginning of the year 1900 there were 10,853,302 acres under artificial grasses. Of these, 4,337,594 acres had been previously ploughed, presumably under grain or other crops, while 6,515,708 acres had not been ploughed. Much of the latter area was bush- or forest-land, sown down in grass after the timber had been wholly or partially burnt off.

The area under ryegrass for seed in the season of 1900 was 39,543 acres, yielding 993,184 bushels of 20 lbs., or a rate of 25·12 bushels per acre, against 66,295 acres and 1,657,482 bushels, an average of 25·01 bushels per acre, in 1898–99.

In cocksfoot there were 54,718 acres, which yielded 9,026,906 lb., or an average of 165 lb. per acre, against 46,275 acres and 6,943,039 lb. (a rate of 150 lb. per acre) in the previous year.

Seeds for sowing pasture lands are used much as in Great Britain, the following being a common mixture: Perennial ryegrass, 25 lb. to 30 lb. per acre; cocksfoot, 2 lb.; alsike, 2 lb.; timothy, 3 lb.; cowgrass, 2 lb.; red clover, 2 lb.; white clover, 2 lb.; rape, 1 lb.: total, 39 lb. to 44 lb. per acre. Pastures are renewed at intervals of from four to eight years, according to the nature of the land.

The following shows the acreage in sown grasses in the Australasian Colonies in 1898–99:—

	Acres.
Queensland	12,543
New South Wales	348,829
Victoria	150,157
South Australia	20,946
Western Australia (1898)	3,317
Tasmania	238,799
New Zealand	10,244,739

It will be observed that the acreage of land under sown grasses was more than thirteen times as great in New Zealand as in the whole of Australia and Tasmania. When compared in size with the colonies of Australia, New Zealand is not large—about one-thirtieth of their total area—but in respect of grazing capabilities the relative importance of this country is much greater. Australia is generally unsuitable, owing to conditions of climate, for the growth of English grasses, and the amount of feed produced by the natural grasses throughout the year is very much less per acre than is obtained from the sown grass lands in New Zealand; indeed, it may be said that the average productiveness of grass-land is about nine times as great here as in Australia, or, in other words, that land in this colony covered with English grasses may be considered equal, for grazing purposes, to an area of Australian land about nine times as great.

In addition to the artificially-sown pastures, the returns for 1900 show that 21,857,909 acres of unimproved land, including that in tussock or native grass, belonged to the occupied holdings, and were available for stock-feeding by the sheep-farmers and cattle-farmers of the colony.

THE DAIRY INDUSTRY.

In respect of the present condition of the dairy industry Mr. Ruddick remarks:—

> The tendency seems to be in the direction of building up large central butter factories, with contributing skimming stations, situated at convenient points in the surrounding country. Already some of the New Zealand factories are large institutions, having a daily output of from one to three tons of butter. It can be said also that the best of these factories are as well built and equipped for the manufacture of fine butter as those to be found in any other country. Such a system, where large quantities of butter are made under the direction of one man, tends towards uniformity in the quality of the product. Large factories

are more apt to be well equipped than very small ones, and the volume of business done enables the company or proprietors to pay sufficient salary to secure picked men for managers. The fact that these large factories do exist, where a fair salary may be earned, is an inducement for superior men to follow the work. It is one of the hopeful signs for the future of New Zealand dairying that the factory managers are, as a whole, a very excellent class of men.

Government Aid to the Dairy Industry.

The Department of Agriculture assists the dairy industry mainly through the "dairying-service" branch. At the head of this branch is the Dairy Commissioner, who is assisted by two dairy instructors and five dairy produce graders. Meetings are addressed on dairying topics, and practical instructions are given at the factories to butter- and cheese-makers, as well as advice to the directors of dairy companies. A large amount of correspondence is attended to, which includes a wide range of technical subjects relating to the manufacture of butter and cheese, the testing of milk, and the organization and equipment of factories. Information on special subjects is disseminated by means of leaflets and pamphlets circulated free from time to time, as occasion may arise.

Grading of Dairy Produce.

Since the 31st March of last year, all butter and cheese intended for export must be sent to one of the Government cool stores to be graded. Butter which is to be sent to Great Britain is frozen after being graded, and given free storage for one month, or until the leaving of the first steamer having available space. Butter for Australian markets is held in ordinary storage only, as the ships which carry it have no refrigerated space. It is stored free for one week. Cheese is held in cool storage under the same conditions as apply to butter, according to the market for which it is intended. The department also pays the cost of handling in and out of the stores.

Reports are given by the grader to the manufacturer of the butter or cheese, showing in detail the result of his examination of each parcel. These reports are becoming a recognised commercial document, and are often attached to bills of lading. Contracts are based on them, and thus they facilitate business as well as protect the local shipper.

Dairy Factories, October, 1899.

Districts.	Butter Factories.	Cheese Factories.	Butter and Cheese Factories combined.	Skimming Stations.
Auckland	14	11	..	40
Taranaki	85	2	12	54
Hawke's Bay ..	5	1	1	3
Wellington ..	18	11	..	36
Marlborough ..	1	2	..	..
Nelson	5	..	..	..
Westland	1	..	..	2
Canterbury ..	7	9	..	13
Otago	16	32	2	23
Total ..	152	68	15	171

SECTION XVIII.—TRANSPORT AND COMMUNICATION.

SHIPPING.

THE shipping entered inwards during 1899 comprised 609 vessels, of 811,183 tonnage; while entered outwards were 604 vessels, of 807,866 tons. Comparison with the figures for the previous year shows in the entries a decrease of 11 vessels and an increase of 45,928 tons, and in the clearances a decrease of 18 vessels and an increase of 42,073 tons. Of the vessels inwards, 149, of 350,861 tons, were British; 388, of 392,671 tons, colonial; and 72, of 67,651 tons, foreign. Those outwards numbered 152, of 355,442 tons, British; 379, of 386,219 tons, colonial; and 73, of 66,205 tons, foreign. Compared with the figures for 1898 there was a decrease of 11 vessels and an increase of 22,831 tonnage in colonial vessels entered, and a decrease in the British shipping entered of 3 vessels, but an increase of 21,796 tons. Of the entries, 252, of 141,310 tons, were sailing-vessels, and 357, of 669,873 tons, steamers. Of the clearances, 250, of 134,621 tons, were sailing-vessels, and 354, of 673,245 tons, steamers. The shipping inwards and outwards for ten years is given in the table following:—

VESSELS ENTERED, 1890–99.

Year.	Total Number.			British.			Colonial.			Foreign.		
	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.
1890 ..	744	662,769	23,475	190	280,105	6,786	477	298,497	13,598	77	84,167	3,091
1891 ..	737	618,515	21,889	169	265,164	6,817	507	291,800	12,951	61	61,551	2,121
1892 ..	686	675,223	22,038	203	335,577	8,274	411	265,769	11,303	72	73,877	2,461
1893 ..	617	615,604	20,935	166	290,323	7,289	405	272,250	11,745	46	53,031	1,901
1894 ..	609	631,100	21,834	141	271,994	6,456	423	306,547	13,279	45	52,559	2,099
1895 ..	611	672,951	22,074	146	299,667	6,837	420	319,313	13,209	45	53,971	2,028
1896 ..	589	614,097	19,857	126	249,601	5,495	395	300,176	12,210	68	64,320	2,152
1897 ..	600	686,899	21,542	133	276,020	6,086	395	340,793	13,138	72	70,086	2,318
1898 ..	620	765,255	24,081	152	329,065	7,910	399	369,840	13,897	69	66,350	2,274
1899 ..	609	811,183	23,929	149	350,861	6,986	388	392,671	14,666	72	67,651	2,277

VESSELS CLEARED, 1890–99.

1890 ..	745	649,705	23,260	195	284,635	7,168	477	283,735	13,076	73	81,335	3,016
1891 ..	744	625,807	22,080	168	271,533	7,002	515	291,938	12,947	61	62,336	2,131
1892 ..	689	656,100	21,679	189	315,633	7,934	424	263,504	11,241	76	76,963	2,504
1893 ..	635	642,466	21,448	186	317,130	7,839	400	270,308	11,665	49	55,028	1,944
1894 ..	614	631,250	21,934	140	270,464	6,437	432	310,050	13,527	42	50,736	1,970
1895 ..	597	648,946	21,619	134	281,840	6,528	420	315,171	13,068	43	51,935	2,023
1896 ..	592	627,659	20,217	123	259,064	5,637	402	305,926	12,448	67	62,669	2,132
1897 ..	587	675,333	21,409	140	280,229	6,240	378	327,068	12,881	69	68,036	2,288
1898 ..	622	765,793	24,130	150	322,150	7,898	403	377,102	13,948	69	66,541	2,284
1899 ..	604	807,866	24,117	152	355,442	7,194	379	386,219	14,656	73	66,205	2,267

NOTE.—Coasting-vessels are not included in the above table.

The noticeable feature in the operations for the decennium is a considerable increase of tonnage inwards and outwards, but decrease in the numbers of vessels, showing that larger ships are now used than those of ten years ago.

The figures given apply to the external trade only; but in a new country such as New Zealand, as yet deficient in roads, but having an extensive seaboard and a number of good harbours, the coastal trade must be relatively very large, as is evidenced by the figures next given:—

SHIPPING ENTERED COASTWISE, 1899.

	Number.	Tons.
Sailing-vessels	4,952	326,883
Steamers	16,402	6,306,051

SHIPPING CLEARED COASTWISE, 1899.

	Number.	Tons.
Sailing-vessels	4,954	329,400
Steamers	16,338	6,313,507

The total number of vessels entered coastwise was thus 21,354, of 6,632,934 tons, an increase of 1,460 vessels and 737,156 tons on the figures for 1898. The total clearances coastwise were 21,292 vessels, of 6,642,907 tons, an increase of 1,535 vessels and of 741,473 tons on the number for the previous year.

REGISTERED VESSELS.

The number and tonnage of the registered vessels belonging to the several ports on the 31st December, 1899 (distinguishing sailing-vessels and steamers), was as under:—

REGISTERED VESSELS, 31ST DECEMBER, 1899.

Ports.	Sailing-vessels.			Steam-vessels.		
	Vessels.	Gross Tonnage.	Net Tonnage.	Vessels.	Gross Tonnage.	Net Tonnage.
Auckland	173	14,836	14,203	83	11,074	6,798
Napier	8	797	774	17	1,564	852
Wellington	23	4,201	4,070	24	4,453	2,494
Nelson	11	281	281	10	820	516
Lyttelton	29	5,282	5,139	7	1,170	479
Dunedin	48	14,394	14,140	69	68,293	41,507
Invercargill	18	2,223	2,146	2	195	124
Totals	310	42,014	40,753	212	87,569	52,770

RAILWAYS.

The history and progress of railways in New Zealand was specially described in the Year-book of 1894, as was also the line partly built by the New Zealand Midland Railway Company. An account of the line belonging to the Wellington and Manawatu Railway Company was published in the Year-book for 1895.

The length of Government railways open for traffic on the 31st March, 1900, was 2,104 miles, of which 824 were situated in the North Island and 1,280 in the Middle Island.

The sections of the North Island lines consist of the Kawakawa, 8 miles; Whangarei, 21; Kaihu, 17; Auckland, 327; and the Wellington–Napier–New Plymouth, 451 miles. The Middle Island sections comprise the Hurunui–Bluff, with branches, 1,173 miles; Greymouth–Brunner, 8; Greymouth–Hokitika, 24; Westport, 31; Nelson, 23; Picton, 21 miles. The total cost of construction has been £16,703,887 (besides £850,385 spent on unopened lines), and the average cost per mile £7,939.

The following statement shows the number of miles of Government railways open, the number of train-miles travelled and of passengers carried, and the tonnage of goods traffic, for the past ten years:—

Year.	Length open.	Train-mileage.	Passengers.	Season Tickets issued.	Goods and Live-stock.*
					Tons.
1890–91	1,842	2,894,776	3,433,629	13,881	2,134,023
1891–92	1,869	3,010,489	3,555,764	16,341	2,122,987
1892–93	1,886	3,002,174	3,759,044	16,504	2,258,235
1893–94	1,948	3,113,231	3,972,701	17,226	2,128,709
1894–95	1,998	3,221,620	3,905,578	28,623	2,123,343
1895–96	2,014	3,307,226	4,162,426	36,233	2,175,943
1896–97	2,018	3,409,218	4,439,387	43,069	2,461,127
1897–98	2,055	3,666,483	4,672,264	48,660	2,628,746
1898–99	2,090	3,968,708	4,955,553	55,027	2,744,441
1899–1900 ..	2,104	4,187,893	5,468,284	63,335	3,251,716

The traffic in local products for the past ten years was:—

Year.	Wool.	Timber.	Grain.	Minerals.	Horses and Cattle.	Sheep and Pigs.
	Tons.	Tons.	Tons.	Tons.	Number.	Number.
1890–91 ..	87,701	153,078	528,683	828,079	44,999	1,313,155
1891–92 ..	85,888	170,521	442,277	873,899	47,618	1,117,253
1892–93 ..	96,842	169,910	523,637	884,031	46,590	1,359,860
1893–94 ..	101,340	183,192	411,191	864,538	51,573	1,394,456
1894–95 ..	103,328	198,578	388,556	857,917	52,075	1,563,213
1895–96 ..	99,363	213,132	374,699	878,659	50,766	1,893,058
1896–97 ..	98,958	257,825	423,888	1,032,252	47,256	2,016,437
1897–98 ..	103,055	313,073	427,448	1,048,868	54,871	2,399,379
1898–99 ..	97,396	310,266	420,071	1,147,353	66,226	2,552,745
1899–1900 ..	104,621	334,677	764,033	1,218,698	76,537	2,559,836

The cash revenue for the year 1899 – 1900 amounted to £1,623,891; and the total expenditure to £1,052,358. The net cash revenue—£571,533—was equal to a rate of £3 8s. 5d. per cent. on the capital cost; the percentage of expenditure to revenue was 64·80. The earnings on some of the lines ranged as high as £8 11s. 10d., and even £13 2s. 2d., per cent.

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* The equivalent tonnage for live-stock has been given.

The particulars of the revenue and expenditure for the past ten years are given herewith :—

Year.	Passenger Fares.	Parcels Luggage and Mails.	Goods and Live-stock.	Rents and Miscellaneous.	Total	Expenditure.	Net Revenue.	Percentages of Expenditure to Revenue.	Percentages of Revenue to Capital Cost.		
	£	£	£	£	£	£	£		£	s.	d.
1890–91	353,593	38,997	690,779	38,332	1,121,701	700,703	420,998	62·47	2	18	11
1891–92	364,617	41,795	671,469	37,550	1,115,431	706,517	408,914	63·34	2	15	9
1892–93	390,619	44,801	707,785	38,316	1,181,521	732,141	449,380	61·97	3	1	0
1893–94	402,019	45,206	686,469	39,098	1,172,792	735,358	437,434	62·70	2	17	9
1894–95	385,149	43,270	683,726	38,706	1,150,851	732,160	418,691	63·62	2	14	6
1895–96	389,234	54,736	698,115	40,956	1,183,041	751,368	431,673	63·51	2	16	0
1896–97	410,160	58,084	774,163	43,751	1,286,158	789,054	497,104	61·35	3	3	10
1897–98	433,430	60,872	837,589	44,117	1,376,008	857,191	518,817	62·30	3	4	10
1898–99	475,553	66,418	882,077	45,617	1,469,665	929,737	539,928	63·26	3	5	10
1899–00	515,020	68,488	985,723	54,660	1,623,891	1,052,358	571,533	64·80	3	8	5

NOTE.—For 1895-96 and subsequent years the railways have been credited with the value of services performed for other Government departments, and debited with the value of work done for the railways by other departments.

The average revenue per mile of railway was £773 12s. 3d., and the average expenditure £501 6s. 9d.; equal to 7s. 9d. and 5s. 0¼d. per train-mile respectively.

The total number of miles travelled by trains was 4,187,893.

In addition to the above railways, there were 167 miles of private lines open for traffic on the 31st March, 1900—namely, the Wellington–Manawatu Railway, 84 miles; the Kaitangata Railway Company's line, 4 miles; and the Midland Railway,* 79 miles.

The cost of the construction of the Wellington–Manawatu Railway was £762,751, being at the rate of £9,080 per mile. The term "cost of construction," as applied to railways, includes value of equipment, rolling-stock, &c., not merely the road-line and buildings. The revenue for the twelve months ended the 28th February, 1900, amounted to £94,046, and the working-expenses to £44,429, equivalent to 47·24 per cent. of the revenue.

The traffic return from the opened part of the Midland line for the year ended 31st March, 1900, was £22,248, and the expenditure £19,011, equivalent to 85·45 per cent. of the revenue. The total expenditure on the construction of this line has been about £760,000.

Australasian Railways.

The following statement gives the number of miles of Government railways open for traffic and in course of construction in the Australasian Colonies in 1898–99 :—

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* This line has since been taken over by the Government under the provisions of "The Railways Construction and Land Act, 1881."

RAILWAYS (STATE ONLY).

Colonies.	Year ended	No. of Miles of Line open at end of Year.	No. of Miles of Line in course of Construction.	Cost of Construction of Open Lines.	Gross Receipts.	Working Expenses.	Percentage of Net Revenue to Cost.	Number of Locomotives.	Number of Vehicles. Passenger.	Number of Vehicles. Goods and Live-stock.
				£	£	£	%			
Queensland	31 Dec., 1898	2,742	58	18,455,317	1,263,153	728,161	2·90	316	356	5,033
New South Wales ..	30 June, 1899	2,707	183	37,992,276	3,145,278	1,690,442	3·83	491	1,044	10,806
Victoria	30 June, 1898	3,113	..	38,593,205	2,608,896	1,646,054	2·49	517	1,061	9,171
South Australia ..	30 June, 1898	1,724	..	12,764,106	984,228	603,474	2·98	332	865	6,282
Ditto, Northern Territory	30 June, 1898	146	..	1,155,152	14,124	20,268	−0·53	6	7	184
Western Australia ..	30 June, 1899	1,355	..	6,427,370	1,004,620	712,329	4·55	281	348	4,558
Tasmania	31 Dec., 1898	438	..	3,585,040	178,180	141,179	1·03	66	161	1,212
New Zealand	31 Mar., 1899	2,090	81	16,404,076	1,469,665	929,737	3·29	298	550	9,792

In addition to the Government lines open for traffic in 1899, New South Wales had 84½ miles of private railway; South Australia, 20 miles; Western Australia, 495 miles; Tasmania, 78 miles, 7½ miles of which are worked by Government; and New Zealand, 167 miles.

POSTAL AND ELECTRIC TELEGRAPH.

There were 1,620 post-offices in New Zealand at the end of 1899. The number of letters, letter-cards, post-cards, books, and pattern-packets, newspapers, and parcels dealt with during the year, compared with the number handled in 1898, was as under :—

	Total Number dealt with. 1898.	Total Number dealt with. 1899.	Increase.
Letters	34,737,316	37,380,671	2,643,355
Letter-cards	917,631	1,103,700	186,069
Post-cards	1,479,964	1,643,051	163,087
Books and pattern-packets	16,618,101	17,659,858	1,041,757
Newspapers	15,095,487	15,717,388	621,901
Parcels	204,603	223,350	18,747

The average number of letters, &c., posted per head of the population in each of the past five years was,—

	1895.	1896.	1897.	1898.	1899.
Letters and letter-cards	39·87	40·77	42·98	45·34	47·77
Post-cards	1·73	1·65	1·84	1·90	2·12
Books and parcels	12·27	17·19	17·36	19·72	21·68
Newspapers	12·95	13·47	14·10	14·77	15·13

The facilities afforded for the transmission of parcels through the Post Office to places within and without the colony have proved of much convenience to the public. The regulations admit of parcels up to 11 lb. in weight being sent to almost all the important countries of the world.

The number and weight of parcels dealt with in 1890, 1895, 1896, 1897, 1898, and 1899 are given. The word "parcels" in the preceding table includes the parcels herein mentioned :—

1890.		1895.		1896.		1897.		1898.		1899.	
No.	Weight.	No.	Weight.	No.	Weight.	No.	Weight.	No.	Weight.	No.	Weight.
	Lb.		Lb.		Lb.		Lb.		Lb.		Lb.
136,327	390,521	176,206	582,193	186,611	654,333	197,554	676,054	204,603	698,301	223,350	765,836

Owing to the greatly reduced book-post rates a large number of the lighter packets of the classes formerly sent by parcel-post continue to be diverted to the packet- and sample-post. This fact accounts for the small increase in the number of parcels.

The following table shows the number of parcels exchanged with the United Kingdom, the Australian Colonies, &c., in 1898 and 1899 :—

Country.	Number of Parcels.			
	Received.		Despatched.	
	1898.	1899.	1898.	1899.
United Kingdom and foreign offices *viâ* London	17,823	19,719	4,023	4,524
Victoria	3,292	3,235	1,311	1,346
New South Wales	4,614	5,691	1,779	1,975
Queensland	343	327	267	293
South Australia	235	258	190	194
Tasmania	143	152	308	315
Western Australia	190	244	236	266
Samoa	17	14	123	213
Rarotonga	5	10	62	70
Ceylon	326	340	145	166
Hawaiian Islands	42	56	18	24
Uruguay	..	..	15	14
Vancouver	..	132	37	67
Fiji	14	29	27	109
Totals	27,044	30,207	8,541	9,576

The declared value of the parcels received from places outside the colony was £70,094, on which the Customs duty amounted to £15,849 18s. 2d.

Money Orders and Postal Notes.

The number of offices open for the transaction of money-order business at the end of 1899 was 434.

During 1899, 344,664 money-orders, for a total sum of £1,118,808 5s. 7d., were issued at the various post-offices in the colony. The money-orders from places beyond New Zealand and payable in the colony numbered 24,023, for the amount of £85,824 4s. 6d.

The number of offices open for the sale of postal notes at the end of 1899–1900 was 497: 461,447 postal notes were sold, value £147,686 8s. 6d. (including £3,054 11s. 5½d. commission). The notes paid numbered 449,584, value £145,083.

Mail-services.

The cost of the various mail-services between England and New Zealand was, in 1899, as follows:—

SAN FRANCISCO SERVICE.	1899.		
	£	s.	d.
Payments—			
Subsidies, &c.	29,737	10	6
Interprovincial and other charges ..	4,660	9	6
	£34,398	0	0
Receipts—			
Postages received from England and the Australian Colonies	11,459	17	6
Postages collected in the colony	12,192	19	9
Penalty for late arrival	..		
	£23,652	17	3
Loss to the colony	£10,745	2	9

PENINSULAR AND ORIENTAL AND ORIENT LINES SERVICES.

	£	s.	d.
Payments—			
To P. and O. and Orient Lines	3,051	14	9
Transit across Australia	149	6	4
" European Continent ..	391	11	4
Intercolonial services	1,532	0	11
	£5,124	13	4
Receipts—			
Postages collected from England and from foreign offices	907	19	6
Postages collected in the colony	2,664	8	9
	£3,572	8	3
Loss to the colony	£1,552	5	1

The total amount of postages collected and contributions received for these services in 1899 was £27,225 5s. 6d.

The average number of days in 1899 within which the mails were delivered between London and each of the under-mentioned ports in New Zealand was:—

London to—	San Francisco Service.	P. and O. Line.	Orient Line.
Auckland	31·54	38·08	38·85
Wellington	32·77	39·15	39·38
Dunedin	33·92	40·40	40·48
Bluff	34·67	39·65	39·73

Electric Telegraph.

There were 6,910 miles of telegraph-line open at the end of March, 1900, carrying 19,228 miles of wire. 3,469,631 telegrams were transmitted during the year; of these, the private and Press messages numbered 3,159,093, which, together with telephone exchange and other telegraph receipts, yielded a revenue of £162,944 14s. 4½d.

There were twenty telephone exchanges and twenty sub-exchanges on the 31st March, 1900. The number of connections increased from 6,203 in March, 1899, to 7,150 in March, 1900. The subscriptions to these exchanges during the financial year amounted to £43,302 2s. 10d.

The capital expended on the equipment, &c., of the several telephone exchanges up to the 31st March, 1900, was £162,333 1s. 2d.

SECTION XIX.—CROWN LANDS.

A SUMMARY of the transactions during the year ended 31st March, 1900, will be found in the following table, which shows under all descriptions of tenure the number of selectors and the area selected:—

Nature and Tenure of Lands selected during the Year ended the 31st March, 1900.	Selectors.	Area. A.	R.	P.	Number of Purchasers or Selectors.	Area. A.	R.	P.
Town lands sold for cash	261	132	1	21	474	23,922	1	17
Suburban lands sold for cash ...	66	290	2	35				
Rural lands sold for cash	147	23,499	1	1				
Perpetual lease					2	624	0	0
Occupation with right of purchase					395	117,771	0	28
Lease in perpetuity					348	111,108	2	38
Agricultural lease					3	69	3	24
Village settlement, cash					6	4	1	12
" occupation with right of purchase ...					3	1	2	0
" lease in perpetuity					69	1,747	2	7
Village-homestead special settlement					6	30	2	21
Special-settlement associations					1	2	0	3
Improved-farm special settlement (lease in perpetuity and occupation with right of purchase)					41	7,393	3	10
Occupation leases, Mining Act					64	2,294	3	11
Small-grazing-runs					57	142,699	0	17
Pastoral runs					140	1,019,831	3	4
Miscellaneous leases and licenses					318	89,723	0	20
Cheviot Estate—								
Cash lands					17	13	3	39
Lease in perpetuity					1	6	2	0
Miscellaneous					10	23	1	33
Land for Settlements Acts—								
Lease in perpetuity					298	42,415	2	22
Lease in perpetuity, village					11	14	0	26
Small grazing-runs					7	12,410	0	36
Miscellaneous					39	2,691	1	25
Totals					2,310	1,574,799	0	33

Particulars of the number of Crown tenants at present holding lands under the several tenures, together with the yearly rental payable, are given in the next statement.

Statement showing the **Total Number of Crown Tenants**, with Area selected or held, and the Yearly Rent payable, as on the 31st March, 1900.

Tenures.	Total Number of Tenants.	Total Area held by such Tenants.			Total Yearly Rental or Instalment payable.		
		A.	R.	P.	£	s.	d.
ORDINARY CROWN LANDS.							
Deferred payment	926*	134,014	2	31	7,415	16	11
Perpetual lease	1,429	336,183	2	8	12,550	0	8
Occupation with right of purchase... ...	2,567	588,164	0	39	22,775	16	11
Lease in perpetuity...	2,775	802,483	3	34	26,407	2	2
Agricultural lease	20	652	3	2	33	2	3
Homestead	19	1,939	3	10	...		
Mining Districts Land Occupation Act ...	222	10,026	2	22	441	16	7
Village settlements—							
Deferred payment	45	821	0	26	87	5	4
Perpetual lease	207	3,697	2	31	572	16	0
Occupation with right of purchase ...	39	29	1	20	13	2	2
Lease in perpetuity	763	13,280	0	19	1,517	15	7
Village-homestead special settlements—							
Perpetual lease	518	11,574	3	23	1,713	18	8
Lease in perpetuity	133	4,464	3	36	469	10	0
Special settlement associations—							
Deferred-payment	32	3,188	0	9	105	8	4
Perpetual lease	24	2,194	1	31	149	7	2
Lease in perpetuity	666	122,966	0	2	6,166	2	5
Improved-farm special settlements—	461	46,975	2	9	†2,518	15	2
Small grazing-runs	575	1,123,358	1	4	23,619	10	10
Pastoral runs	966	11,339,071	0	2	75,007	15	2
Miscellaneous leases	1,861	334,843	3	11	8,512	3	7
Totals	14,248	14,879,931	0	9	190,077	5	11
CHEVIOT ESTATE—							
Lease in perpetuity	106	24,911	0	33	6,428	1	8
Village-homestead special settlement ...	77	2,480	1	0	873	0	4
Grazing-farms	39	45,691	0	9	6,587	14	8
Pastoral runs	2	2,102	0	0	262	3	8
Miscellaneous	66	1,656	3	37	244	10	10
LAND FOR SETTLEMENTS ACTS—							
Lease in perpetuity	1,489	210,543	2	37	65,271	17	11
Lease in perpetuity, village	46	429	0	12	323	6	6
Special-settlement associations	11	2,114	1	9	162	7	8
Small grazing-runs	31	51,640	0	24	6,471	15	6
Miscellaneous	79	3,425	0	39	464	5	0
THERMAL-SPRINGS (ROTORUA)	212	5,413	0	26	1,435	11	4
Grand totals	16,406	15,229,338	0	35	278,602	1	0

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* Includes one endowment in Wellington—area, 107 acres—of an annual rental of £11 7s. 5d.; and five holdings of endowment land in Nelson—area, 241 acres 1 rood 1 perch—annual rental, £23 18s. † Annual rental has not been fixed in a number of cases.

The decennial tables I. and II. exhibit the acreage of land *taken up for settlement*, and the number of holdings under each description of tenure. The lands held under pastoral license and miscellaneous leases, such as for timber and flax-cutting, coal-mining, &c., *are not included* in these tables. Tables III. and IV. show the total acreage taken up year by year since 1890 in each land district, and the number of holdings grouped according to size, the areas varying from less than one acre in extent to 1,000 acres and over.

The forfeitures and surrenders in respect of the lands taken up for settlement (excluding, as already remarked, pastoral and miscellaneous leases) for the last four years were:—

1896-97	... 815 holdings	228,978 acres.	1898-99	... 567 holdings	180,957 acres.
1897-98	... 658 "	130,380 "	1899-1900	... 513 "	164,204 "

Forfeited and surrendered lands are again thrown open for selection as soon as possible, and in the majority of cases are taken up again by fresh selectors within a short time.

A full description of the various tenures under which land is dealt with in the colony is given in the article entitled "The Land System of New Zealand," in Part III. of this book.

I.—COMPARATIVE STATEMENT SHOWING ACREAGE OF LANDS SELECTED UNDER SETTLEMENT CONDITIONS (EXCLUDING PASTORAL RUNS AND MISCELLANEOUS LEASES AND LICENSES) DURING EACH OF THE YEARS ENDED 31ST MARCH, 1890–1900.

—	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cash lands	46,922	100,014	40,501	36,327	34,999	38,695	26,575	28,485	22,525	37,400	23,936
Deferred payments	41,376	34,091	40,467	21,084	12,669	5,454	456	..	..	13	..
Perpetual lease and small areas ..	236,905	288,917	282,547	122,558	3,854	1,263	1,427	9,106	651	640	624
Occupation with right of purchase ..	..	..	..	54,271	108,133	75,478	84,968	59,648	81,414	109,950	117,771
Lease in perpetuity	..	..	..	55,320	179,993	91,799	122,350	104,927	117,938	159,415	153,531
Agricultural lease	53	551	90	194	365	45	36	13	258	114	70
Occupation lease under "The Mining Districts Land Occupation Act, 1894"	..	..	..	..	..	..	2,931	2,817	1,285	1,449	2,295
Village settlement—											
Cash	656	210	429	528	2	24	9	4	1	30	4
Deferred payment	782	370	182	391	..	..	..	..	..	..	..
Perpetual lease	1,729	954	893	2,636	..	..	..	..	..	..	..
Occupation with right of purchase	..	..	..	..	1	23	2	4	2	2	1
Lease in perpetuity	..	..	..	4	3,953	4,050	3,365	1,317	1,426	2,115	1,762
Village-homestead special settlement	270	350	2,213	494	2,550	2,743	793	360	42	134	31
Special-settlement associations ..	4,970	71	1,923*	157,381†	68,852†	†51,346	†44,237	28,084†	†442	†607	†2
Homestead	1,751	945	1,010	38	..	..	..	..	..	..	..
Special-settlement improved farms ..	..	..	..	..	..	9,731	28,348	4,882	9,007	4,823	7,393
Small grazing-runs and grazing-farms	60,340	86,161	159,465	92,927	252,693	117,846	46,407	68,934	149,458	77,632	155,109
Totals	395,754	512,634	529,720	544,153	668,064	398,497	361,904	308,581	384,449	394,324	462,529

* Perpetual lease. † Lease in perpetuity.

NOTE.—The forfeitures and surrenders for the last four of the years dealt with in the table were—for the year 1896-97, 228,978 acres; 1897-98, 130,380 acres; 1898-99, 180,957 acres; and for 1899-1900, 164,204 acres. But it must not be supposed that these relate to the acreages taken up during the same years; on the contrary, forfeitures may have their origin in selections of long standing and various dates.

II.—Comparative Statement showing Number of Selectors of Land under Settlement Conditions (excluding Pastoral Runs and Miscellaneous Leases and Licenses) during each of the Years ended 31st March, 1890–1900.

—	1889–90.	1890–1.	1891–2.	1892–3.	1893–4.	1894–5.	1895–6.	1896–7.	1897–8.	1898–9.	1899–1900.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
For cash	543	573	493	552	497	392	476	388	272	534	491
Deferred payments	304	258	223	169	96	47	6	..	..	1	..
Perpetual lease and small areas	756	788	824	385	17	3	7	19	2	1	2
Occupation with right of purchase	..	..	..	161	461	398	431	277	380	458	395
Lease in perpetuity	..	..	..	126	612	372	696	659	599	675	647
Agricultural lease	1	4	2	4	5	2	3	2	5	2	3
Occupation lease under "The Mining Districts Land Occupation Act, 1894"	..	..	..	..	..	..	69	48	23	31	64
Village settlement—											
Cash	159	87	88	75	3	23	16	4	2	21	6
Deferred payment	75	51	23	29	..	..	..	..	..	..	..
Perpetual lease	76	56	59	164	..	..	..	..	..	..	..
Occupation with right of purchase	..	..	..	..	5	30	3	4	2	3	3
Lease in perpetuity	..	..	..	2	203	232	193	102	92	106	80
Village-homestead special settlement	20	10	140	33	118	60	19	18	9	12	6
Special-settlement associations	46	2	18	838	290	262	238	142	5	5	1
Homestead	19	9	8	1	..	..	..	..	..	..	..
Improved-farm special settlement	..	..	..	..	..	107	315	45	77	64	41
Small grazing-runs and grazing-farms	35	43	80	39	142	60	32	27	71	40	64
Totals	2,034	1,881	1,953	2,578	2,454	1,988	2,504	1,735	1,539	1,953	1,808

Note.—The forfeitures and surrenders for the last four of the years dealt with in the table were—for the year 1896–97, 815 holdings; 1897–98, 658 holdings; 1898–99, 567 holdings; and 1899–1900, 513 holdings. See note to previous table as to the origin of these failures.

III.—LANDS TAKEN UP UNDER SETTLEMENT CONDITIONS DURING EACH OF THE YEARS ENDED 31ST MARCH, 1891–1900 (EXCLUSIVE OF PASTORAL RUNS AND MISCELLANEOUS LEASES AND LICENSES).*

Land District.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland	95,510	105,120	115,454	134,992	99,313	67,831	49,522	56,295	90,160	78,677
Hawke's Bay	45,603	36,008	49,831	24,356	20,141	16,353	22,858	19,876	36,222	36,451
Taranaki	33,785	55,237	49,064	13,954	35,113	55,850	22,002	16,786	18,867	54,960
Wellington	108,053	82,311	156,297	84,871	49,586	79,478	63,801	48,909	63,746	41,387
Nelson	23,808	12,992	17,797	36,739	34,906	19,421	14,462	13,600	18,673	10,211
Marlborough	11,023	3,016	8,055	8,227	18,353	15,858	20,858	54,581	51,973	74,311
Canterbury	133,761	62,831	12,777	94,861	33,744	14,827	22,654	75,041	52,839	34,218
Westland	313	1,010	162	1,346	1,826	1,765	3,865	437	352	792
Otago	47,450	141,565	90,043	159,050	80,439	70,238	79,212	77,345	40,599	68,436
Southland	13,328	29,630	44,673	109,668	25,076	20,283	9,347	21,579	20,893	63,086
Totals.. ..	512,634	529,720	544,153	668,064	398,497	361,904	308,581	384,449	394,324	462,529

IV.—HOLDINGS TAKEN UP UNDER SETTLEMENT CONDITIONS DURING EACH OF THE YEARS ENDED 31ST MARCH, 1891-1900 (EXCLUSIVE OF PASTORAL RUNS AND MISCELLANEOUS LEASES AND LICENSES), CLASSIFIED ACCORDING TO SIZE.

Size.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Under 1 acre	170	214	154	176	256	259	154	108	293	345
1 to 50 acres	531	581	727	739	696	719	588	496	571	501
51 to 250 acres	603	617	1,253	983	757	1,198	709	616	633	492
251 to 500 acres	307	255	264	341	169	232	178	197	277	262
501 to 1,000 acres	173	187	104	150	70	70	84	63	128	116
1,001 acres and upwards ..	97	99	76	115	40	26	22	64	51	87
Totals.. ..	1,881	1,953	2,578	2,454	1,988	2,504	1,735	1,539	1,953	1,803

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* See notes as to forfeitures and surrenders on previous tables.

SECTION XX.—LAND FOR SETTLEMENTS.

A FULL description is given, in a special article belonging to Section 1, Part III., of the objects and method of the Land for Settlements Acts, under which the acquirement by Government is authorised, through purchase from private owners, of properties for subdivision into small farms to meet the want felt of Crown lands for disposal in places where they are specially in demand.

The report of the Chairman of the Board of Land Purchase Commissioners on the transactions for the twelve months ended the 31st March, 1900, states:—

Fifty-seven estates, of a total area of 381,213 acres, were offered during the year. Of that area, 81,318 acres were declined, not recommended, or withdrawn, leaving 299,895 acres, of which an area of 191,830 acres is under consideration, and an area of 108,065 acres was recommended for purchase. Including with this latter area part of the land offered in the previous year, twenty-eight estates were recommended for purchase, with the result that offers were accepted for nineteen, of an aggregate area of 79,889 acres, for the sum of £353,718. Of the other nine estates, the owners of eight declined the prices offered, and the owners of one have the offer made them under their consideration.

The names of the estates purchased are:—Whitehall, Fencourt, Aorangi, Te Matua, Ohakea, North Bank, Punaroa, Papaka, Pareora No. 2, Rautawiri, Takitu, Rural Sections 36056–57, 36228, 36231, part 36469, Elderslie, Janefield, and Barnego. With the exception of North Bank, possession of all was given within the year under review.

The total purchases under the Land for Settlements Act since its commencement are seventy-seven estates, containing an area of 324,168 acres, at a cost of £1,523,927 for land, and £74,165 for road-formations, surveys, and administration—in all, a total of £1,598,092.

In the matter of the compulsory taking of the Hatuma Estate, the Compensation Court sat in Napier in April, 1899, and in February, 1900, for the purpose of fixing the value of the estate; but as no award was made on either occasion, the Court again sat from the 21st to the 27th June at the same place, when an award was made fixing the price to be paid for 26,391 acres at £141,618, or at the rate of nearly £5 7s. 4d. per acre. The offer made by the Government in October, 1897, was £4 10s. per acre.

An amendment of the Act came into force on the 29th September, 1899, rectifying certain working details, but principally extending the scope of acquiring lands, or of taking them compulsorily, if need be, for workmen's homes. Negotiations have been entered into for the acquisition of land for that purpose, but it is found to be a very difficult matter in some cases to obtain suitable land in position and at a price within the means of workmen who would travel to and from their work daily by railways to the cities. As the Act expires by effluxion of time on the fourteenth day after the close of the present session of Parliament, provision is made for its continuance in a Bill, now being prepared, consolidating the principal Act and its amendments.

The Surveyor-General's report to the Hon. the Minister of Lands on the condition and settlement of the lands acquired and handed over to his department under the above-mentioned Acts gives the particulars of the estates offered for selection as follows:—

There were nine new estates offered, besides four allotments purchased in order to furnish homestead-sites for pastoral lands hitherto without them. The total area offered for selection this last year was 45,059 acres in nine estates, and 318 acres in four homesteads, an area considerably less than dealt with the preceding year, though the number of properties is greater. In the report of the Department of Lands and Survey for the current year will be found a good deal of detail respecting each of the estates purchased to date.

ESTATES OFFERED FOR SELECTION during the year ended 31st March, 1900.

Land District and Name of Estate.	Area of Estate.	Number of Selectors.	Number of Original Applications.	Area unselected 31st March, 1900.	Annual Rental payable on Lands leased.	Date when offered for Selection.
Auckland—	A. R. P.			A. R. P	£ s. d.	
Fencourt ...	7,105 3 5	25	24	2,471 1 22	1,142 7 10	12 Mar., 1900
Wellington—						
Ohakea... ...	1,745 1 30	12	25	363 3 9	898 11 6	27 Dec.. 1899
Te Matua ...	702 0 19	13	17	...	527 7 4	27 Dec., "
Marlborough—						
Richmond Brook	5,854 0 0	11	40	...	1,313 13 4	18 Aug., "
Canterbury—						
Tamai	41 0 28	30	15	7 0 0	191 0 4	26 June, "
Takitu	9,713 0 37	4	17	1,494 0 0	931 10 4	1 Mar., 1900
Pareora No. 2 ...	8,132 0 31	31	220	484 0 37	3,495 10 0	22 Mar., "
Four homesteads	318 1 12	4	4	...	70 0 2	
Otago—						
Janefield ...	147 0 2	20	31	12 0 0	256 9 0	15 Sept., 1899
Elderslie ...	11,618 2 4	24	50	3,501 0 11	2,981 12 4	30 Mar., 1900
Totals ...	45,377 3 8	174	443	8,333 1 39	11,808 2 2	

The area unselected on the 31st March last seems large, but this has been considerably reduced since that date by further selections. Some few portions of the estates were purposely withheld from selection for a time. In the case of Fencourt a most unfortunate fire occurred just before the day of selection, which destroyed the grass and some of the surface-soil, and consequently this part remains unselected at present.

In addition to the 174 selectors shown in the above table, other selections in the estates previously acquired took place, making the total number for the year to be 316, which number is exclusive of several holders of miscellaneous leases.

The Commissioners' reports speak favourably of the condition and settlement on these estates as a whole. Some few are still suffering from drawbacks, due to natural and other causes, which are, however, of a temporary nature, whilst the bulk of the estates are flourishing, and appear to be well established.

The arrears of rent owing by 213 selectors out of a total number of 1,630, amounted to £7,193 on the 31st March. During the year thirty-six selectors had their properties forfeited for non-compliance with the conditions of the leases, the rentals in those cases amounting to £1,130 9s. The surrenders during the year numbered ten, the rentals of which amounted to £142 9s. It is the rule that forfeited or surrendered sections are re-offered to the public as soon as possible, and they are very generally taken up again.

The total number of estates acquired, and which have been offered for selection, is sixty-nine, covering an area of 289,660 acres, out of which 267,991 acres have been leased in farms, &c., whilst 6,278 acres have been absorbed in roads and reserves, and 15,390 acres remained unlet on the 31st March last. These figures exclude eight estates acquired but not offered for selection up to the close of the year, as they could not be prepared in time. They have since been offered, and nearly the whole disposed of.

The following figures will show the position as at the 31st March last:—

Cost of estates that have been offered for selection	£1,413,149
Cost of roads, surveys, administration, on estates offered for selection, and preliminary expenses	73,313
	£1,486,462
The lands disposed of are let at an annual rental of	£72,656
The lands unlet (exclusive of roads and reserves, &c.) are valued at a rental of	3,671
	£76,327

Taking the lands actually let, it will be seen that the rentals will pay interest on the capital expended at the rate of 4·8 per cent., or exactly the same as for the previous year. If the unlet lands are included, the interest would be at the rate of 5·1 per cent. on capital.

It is understood that that part of the capital raised on loan is paying interest at the rate of not quite 4 per cent., consequently the estates are more than paying their way, even after allowing for the arrears of rental due, which, however, are a good asset.

The estates, &c., acquired in each district under the Land for Settlements Acts to the 31st March, 1900, are next shown :—

Name of Estate.	Area acquired. A.	R.	P.
Auckland—			
Fencourt	7,107	0	0
Karapiro	2,270	3	9
Okauia	5,919	1	30
Opouriao	7,604	0	0
Rangiaka	4,004	0	0
Whitehall	8,980	1	0
	35,885	1	39
Hawke's Bay—			
Elsthorpe	9,740	0	0
Mahora	1,333	3	9
Pouparae	337	3	4
Raureka	427	2	0
Tomoana	110	2	16
Waimarie	430	1	30
Willows	775	2	0
	12,955	2	19
Wellington—			
Aorangi	1,785	0	0
Okakea	1,741	1	29
Paparangi	322	3	32
Te Matua	702	0	19
	4,551	2	0
Marlborough—			
Blind River	5,020	0	0
Flaxbourne (part)	404	0	0
North Bank	13,000	0	0
Omaka	3,898	0	0
Puhipuhi	320	0	0
Richmond Brook	5,827	0	0
Starborough	32,385	3	15
	60,854	3	15
Westland—			
Poerua	3,230	1	6
Canterbury—			
Albury	19,340	3	38
Arowhenua	4,651	0	12
Ashley Gorge	1,666	0	24
Braco	27	2	0
Epworth	21	0	3
Hekeao	2,209	0	8
Highbank	9,119	3	2
Horsley Down	4,004	1	33
Kapua	574	1	5
Kereta	105	2	16
Marawiti	2,028	2	33
Omihi Stock Reserve ...	20	0	0
Orakipaoa	384	0	31
Otarakaro	39	3	9
Otaio	376	2	30
Pareora	620	2	13
Patoa	7,347	0	38
Canterbury—*continued.*			
Pawaho	51	3	18
Papaka	1,561	3	34
Pareora No. 2	8,108	3	29
Punaroa	7,025	1	5
Rautawiri	113	3	37
R.S. 20184	36	2	22
" 2682	6	2	4
" 36469	20	0	0
" 36228	100	3	23
" 36231	98	3	30
" 36056-7...	58	0	16
" 36469 (2)	154	3	2
Roimata	48	3	37
Rosebrook	600	1	8
Studholme	107	2	17
Takitu	9,697	3	37
Tamai	40	3	34
Waikakahi	47,865	1	1
Wharenui	73	1	10
	127,809	1	19
Otago—			
Ardgowan	4,241	0	0
Barnego	7,019	1	39
Elderslie	11,394	0	21
Janefield	147	0	2
Maerewhenua	11,150	3	36
Makareao	2,367	3	31
Makareao Extension ...	2,535	3	0
Momona	218	2	36
Pomahaka	7,462	3	1
Puketapu	509	0	6
Tahawai	69	0	19
Teanaraki	347	3	18
Toka-rahi	11,051	2	9
	58,515	1	18
Southland—			
Beaumont	4,322	3	20
Merrivale	9,998	0	0
Otahu	6,044	0	29
	20,365	0	9
SUMMARY.			
Auckland	35,885	1	39
Hawke's Bay	12,955	2	19
Wellington	4,551	2	0
Marlborough...	60,854	3	15
Westland	3,230	1	6
Canterbury	127,809	1	19
Otago	58,515	1	18
Southland	20,365	0	9
Totals	324,167	2	5

Of the total area of 324,168 acres acquired to the 31st March, 1900, an area of 267,991 acres was leased to 1,630 selectors, representing 4,197 persons on the land, the annual rent now payable being £72,656. The area occupied by roads and reserves was close on 7,000 acres, the area unlet is 15,390 acres, and the balance of nearly 36,500 acres was under survey and preparation for selection on above date.

SECTION XXI.—FINANCE.

SUBSECTION A.—REVENUE AND EXPENDITURE OF THE GENERAL GOVERNMENT.

FOR the year ended 31st March, 1900, the receipts from all sources amounted to £5,699,618, while the actual expenditure, exclusive of £450,000 transferred to the Public Works Fund in terms of section 17 of "The Appropriation Act, 1899," was £5,140,127. The excess of receipts shown on the year's transactions was thus £109,491, but the amount in hand at the beginning of the year having been £495,861, makes the total credit balance on the 31st March £605,352.

The chief heads of revenue and expenditure are shown in the following table:—

REVENUE AND EXPENDITURE.

Revenue.	£	£
Balance on 31st March, 1899	...	495,861
Customs duties	2,107,567	
Beer duty	80,292	
Stamps	860,898	
Land-tax	293,627	
Income-tax	128,721	
Railways	1,621,613	
Registration and other fees	74,373	
Marine dues	27,820	
Miscellaneous	123,246	
Territorial revenue	262,229	
		5,580,386
Other receipts—		
Proceeds of debentures for Sinking Fund accretions	50,400	
Net recoveries from Government Advances to Settlers' Office Management Account	7,000	
Recoupment of interest in respect of debentures issued under the Land for Settlements Acts, 1892 and 1894	61,832	
		119,232
		£6,195,479

Expenditure.	£	£
His Excellency the Governor	5,000	
Legislative	42,996	
Ministers' salaries and allowances	9,173	
Interest and Sinking Fund charges	1,749,394	
Exchange and commission	24,864	
Pensions, civil and military	33,808	
Old-age Pensions	157,095	
Railways	1,039,412	
Public Instruction	472,653	
Postal and telegraph services	388,582	
Judicial and legal	241,197	
Hospitals and charitable institutions	87,853	
Defence	162,940	
Subsidies to local bodies	68,920	
Department of Agriculture	68,163	
Lunatic Asylums	53,581	
Valuation Department	20,579	
Customs	35,628	
Marine (Harbours and Lights)	38,138	
Printing and Stationery	25,874	
Land and Income Tax Department	26,604	
Registration of Land and Deeds, Births, Deaths, and Marriages	20,319	
Public Buildings and Domains	16,507	
Miscellaneous expenditure	121,030	
Territorial expenditure	230,817	
		5,140,127
Other expenditure—		
Transferred to Public Works Fund		450,000
Balance on March 31, 1900		605,352
		£6,195,479

Ordinary Revenue.

With the exception of "Land-tax" the chief heads of ordinary revenue show most substantial increases for the year 1899–1900 over the figures for 1898–99. Taking these items in order of their magnitude, the advance is shown below:—

Heads of Revenue.	Ordinary Revenue.				Increase.	
	1899-1900.	Per Cent. of Total.	1898-99.	Per Cent. of Total.	Numerical.	Centesimal.
	£		£		£	Per Cent.
Customs duties	2,107,567	39·63	1,965,018	40·00	142,549	7·25
Railways...	1,621,613	30 49	1,465,507	29·83	156,106	10·65
Stamps	860,898	16·19	779,399	15·87	81,499	10·46
Land-tax...	293,627	5·52	298,053	6·07	- 4,426*	- 1·49*
Income-tax	128,721	2·42	115,480	2·35	13,241	11·47
Beer duty	80,292	1·51	76,213	1·55	4,079	5·35
Registration and other fees	74,373	1·40	73,822	1·50	551	0·75
Marine	27,820	0·52	25,490	0·52	2,330	9·14
Miscellaneous	123,246	2·32	113,647	2·31	9,599	8·45
Ordinary revenue...	5,318,157	100·00	4,912,629	100·00	405,528	8·25

* Decrease.

Though the receipts from Land-tax decreased by 1·49 per cent. during the year, the amount derived from Customs duties was 7·25 per cent. greater than that shown for 1898–99, Beer duty 5·35 per cent., Income-tax 11·47 per cent., Stamps 10·46 per cent., and Railway revenue shows an advance of 10·65 per cent. While the population of the colony increased by 1·60 per cent. during 1899–1900, the ordinary revenue advanced at the much higher rate of 8·25, as shown above.

The Customs and Excise duties in 1899-1900 accounted for £39 12s. 7d. out of every £100 of ordinary revenue collected; Railways, £30 9s. 10d.; and Stamps, £16 3s. 9d. Of other items the Land-tax yielded 5·52 per cent., and Income-tax 2·42 per cent. of the revenue.

Territorial Revenue.

Territorial revenue decreased from £273,799 in 1898–99 to £262,229 in 1899–1900, or at the rate of 4·22 per cent. In the previous year, 1898–99, there was an increase of 3·99 per cent. Details for the last two years are as under:—

—	Territorial Revenue.				Increase or Decrease, 1899-1900.	
	1899-1900.	Per Cent. of Total.	1898-99.	Per Cent. of Total.	Numerical.	Centesimal.
	£		£		£	Per Cent.
Cash land sales	73,592	28·06	81,384	29·72	- 7,792	- 9·57
Deferred-payment land sales	17,239	6·58	21,911	8·00	-4,672	-21·32
Pastoral runs, rents, miscellaneous	171,398	65·36	170,504	62·28	+ 894	+ 0·52
Territorial revenue	262,229	100·00	273,799	100·00	-11,570	- 4·22

By the foregoing table the cash land sales for 1899–1900 are shown to have decreased by nearly 10 per cent., and to supply 28 per cent. of the whole territorial revenue; while rents and miscellaneous, which constitute 65 per cent. of the total, have slightly increased.

Moneys received for lands sold under deferred-payment regulations show a decrease of £4,672, or 21·32 per cent., when compared with the figures for 1898–99.

Ordinary and Territorial Revenue.

The total ordinary and territorial revenue is found to have increased from £5,186,428 in 1898–99 to £5,580,386 in 1899–1900, at the rate of 7·6 per cent., or nearly five times the rate at which population has increased:—

	Ordinary.	Territorial.	Total.
	£	£	£
Year 1898–99	4,912,629	273,799	5,186,428
„ 1899–1900	5,316,157	262,229	5,580,386
Increase ..	405,528	–11,570 (dec.)	393,958

After allowing for alteration in system of charging interest and sinking fund, the charges of the public debt in proportion to the ordinary and territorial revenue are found to have fallen from 41·6 per cent. in 1890–91 to 31·4 per cent. in 1899–1900.

If the sum of £90,831, the amount of territorial revenue received by way of land sales in 1899–1900, is deducted from the total revenue, the charges of the public debt will be found to have absorbed 31·87 per cent. of the revenue, reduced by the sum derived from relinquishment of real estate of the Crown.

Total Revenue of General Government.

The whole of the revenue of the General Government arising from taxation as well as from other sources for the last five financial years exhibits great progress. The rates of taxation and of revenue per head of mean population are given to illustrate this.

Year ended 31 March.	Revenue.			Rate of Taxation per Head of Mean Population.	Rate of Revenue per Head of Mean Population.
	From Taxation.	From other Sources.	Total.		
	£	£	£	£ s. d.	£ s. d.
1896	2,335,760	2,220,255	4,556,015	3 7 1	6 10 10
1897	2,521,911	2,276,797	4,798,708	3 11 0	6 15 1
1898	2,678,576	2,400,654	5,079,230	3 13 11	7 0 2
1899	2,707,099	2,551,129	5,258,228	3 13 3	7 2 3
1900	2,891,126	2,808,492	5,699,618	3 16 10	7 11 6

The total revenue is shown to have increased from £4,556,015 in 1895–96 to £5,699,618 in 1899–1900, a difference of £1,143,603, while the proportion to population has increased by over £1 per head. The greater yield from the sources of taxation exhibited by the above figures can be regarded as indicative of increased prosperity enjoyed by the people of the colony.

Ordinary Revenue Expenditure.

The expenditure for 1899–1900 (exclusive of expenditure properly belonging to territorial purposes) amounted to £4,909,310, of which the largest item, after the charges of the public debt, £1,749,394, was on account of railways, £1,039,412. Public instruction cost £472,653, of which £393,228 were for carrying on the Board schools; £18,576 for technical and higher education; £17,346 for Native schools; £11,623 for industrial schools; and £25,000 for school buildings. The postal and telegraph services cost £388,582. Under the heading "Judicial and Legal" the total sum expended was £241,197, of which the largest item was the police, £115,752; the next, District and Magistrates' Courts, £44,783; and, thirdly, prisons, £28,926. Hospitals and charitable institutions cost £87,853, and the lunatic asylums £53,581. Defence required £162,940; the Department of Agriculture £68,163; and the Valuation Department £20,579. Payments of Old-age Pensions required £157,095 for the year ended 31st March, 1900.

Territorial Expenditure.

The chief items of expenditure under this head are the Lands and Survey Department, £123,441, and Mines, £14,763; while there was paid to local bodies £87,221 (£34,309 being "thirds" and "fourths" under the Land Act; and £16,418 for the Greymouth, £6,194 for the New Plymouth, and £30,300 for the Westport Harbour Boards); besides £4,872 expended in management of water-races, and £520 in rates on Crown lands.

Ordinary and Territorial Expenditure: Five Years.

The expenditure out of ordinary and territorial revenue during the last five financial years shows somewhat of increase, but by no means so much as the increase of revenue before alluded to. The chief heads of expenditure are given below. It must be noted that the old-age pensions become a large item for the year 1899–1900:—

Expenditure.	Financial Years (ended 31st March).				
	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.
	£	£	£	£	£
Charges of the Public Debt	1,683,775	1,709,469	1,741,413	1,767,468	1,749,394
Railways	744,200	776,748	849,923	968,917	1,039,412
Public Instruction (including School-buildings, Industrial and Native Schools, and Deaf-and-dumb Institution). ...	453,156	461,582	466,925	475,218	472,653
Postal and Telegraph ..	338,836	352,386	362,993	388,546	388,582
Militia and Volunteers ..	98,985	88,742	91,388	119,051	162,940
Old-age Pensions	..	..	..	3,124	157,095
Crown Lands and Surveys ..	117,498	115,247	119,920	114,469	123,441
Police and Armed Constabulary	98,014	100,401	104,214	115,293	115,752
Other expenditure ..	836,017	905,406	865,596	906,425	930,858
Totals	4,370,481	4,509,981	4,602,372	4,858,511	5,140,127

Loan Accounts Expenditure, 1899–1900.

In addition to the expenditure above referred to, there were also—excluding redemption and renewal of debentures, &c.—disbursements during the financial year ended 31st March, 1900, out of the Public Works Fund to the amount of £993,223, chiefly for roads, railway construction, and for public buildings; also out of the Land for Settlements Account the large sum of £374,149 for purchase of estates to be cut up for close settlement, including contingent expenses. This account also recouped the Consolidated Revenue with an amount of £95,182 on account of interest which had accrued since 1893. The Loans to Local Bodies Account, which deals with moneys used chiefly for roading the more inaccessible country, shows an expenditure of £100,133; and for interest on debentures, surveys, roads, &c., in connection with the Cheviot Estate £8,917 was paid. Details of all these are given. The total expenditure out of loan accounts was £1,906,604, but, as previously explained, this account was aided by a transfer from revenue of £450,000 to the Public Works Fund.

EXPENDITURE OUT OF LOAN ACCOUNTS, 1899-1900.

	£	£
Public Works Fund—		
Immigration	385	
Public Works, Departmental	12,572	
Railways	417,937	
Roads	285,532	
Development of goldfields	21,815	
Purchase of Native lands	31,882	
Telegraph extension	26,771	
Public buildings	115,427	
Lighthouses, harbour-works, and defences ..	9,026	
Rates on Native lands	744	
Contingent defence	42,810	
Charges and expenses of raising loans	28,322	
		993,223
Cheviot Estate Account –		
Interest (including arrears)	8,866	
Surveys, Roading, &c.	51	
		8,917
Land for Settlements Account—		
Purchase of Estates	353,718	
Expenses	20,431	
Interest recouped to Consolidated Fund	95,182	
		469,331
Loans to Local Bodies Account—		
Loans to Local Bodies	68,770	
Roads to open up Crown Lands..	31,363	
		100,133
Aid to Public Works and Land Settlements Acts—		
Debentures redeemed and advances repaid		335,000
Total		£1,906,604

The expenditure out of loan accounts for five years may be summarised as given in the next table. The large amounts shown for 1895-96 as devoted to advances to settlers and for preferred shares in the Bank of New Zealand are of the nature of investments calculated to contribute directly to the revenue:—

Heads of Expenditure out of Loan Accounts.	Financial Years.				
	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
	£	£	£	£	£
Charges and expenses of raising loans	105,883	942	5	225	28,322
Cheviot Estate purchase and expenses	14,513	14,953	16,657	16,497	8,917
Contingent defence ..	5,000	10,554	10,360	13,867	42,810
Immigration	*Cr.* 10	301	70	105	385
Land purchases	*331,878	*442,535	*220,089	*571,642	*501,355
Lighthouses, harbour works, and defences	7,410	11,600	5,295	15,662	9,026
Public buildings	76,529	70,579	73,585	107,267	115,427
Public Works departmental expenditure	14,300	14,892	9,689	10,090	12,572
Railway construction and other works connected with railway extension ..	197,105	207,286	351,600	374,141	417,937
Rates on Native lands ..	340	332	156	347	744
Roads	†‡204,999	†‡202,184	†309,548	†312,506	†316,753
Telegraph extension ..	35,538	36,791	29,384	28,551	26,771
Development of goldfields ..	9,345	10,508	33,117	17,355	21,815
Payments to Local Bodies under Government Loans to Local Bodies Acts ..	75,249	66,133	75,257	75,428	68,770
Government Advances to Settlers Office, separate account	1,394,124	..	..	..	..
Bank of New Zealand preferred shares	500,000	..	..	..	..
Debentures redeemed and advances repaid ..	..	..	..	..	335,000
Totals ..	§ 2,972,203	1,089,590	1,134,812	1,543,683	1,906,604

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* Including sums expended in the purchase of land for settlements—viz., £168,467 in 1895-96; £313,572 in 1896-97; £158,586 in 1897-98; £518,459 in 1898-99; and £469,331 in 1899-1900.

† Including sums expended under section 2 of "The Government Loans to Local Bodies Act, 1891"—viz., £30,057 in 1895-96; £31,017 in 1896-97; £18,770 in 1897-98 £16,972 in 1898 99; and £31,363 in 1899-1900.

‡ Including sums expended under "The Lands Improvement Act, 1894"—viz., £108,168 in 1895-96, and £106,930 in 1896-97.

§ Or, *excluding* the amounts applied to investments by way of advances to settlers with charges and expenses, and the Bank of New Zealand preferred shares, £972,196 for the year 1895-96.

The total amount of actual loan moneys under various heads raised from the beginning is roughly shown further on in a table dealing with the public debt of the colony.

Although the Public Works Fund forms the main source of the expenditure out of Loan Accounts, all the money included in it has not been raised from loans. Amounts from the Revenue of the Consolidated Fund were paid to the Public Works Fund during the last nine financial years as under:—

	£
1891-92	30,000
1892-93	200,000
1893-94	250,000
1894-95	250,000
1895-96	150,000
1896-97	150,000
1897-98	300,000
1898-99	425,000
1899-1900	450,000
Total	£2,205,000

The expenditure each year since 1884 on services provided for by the Public Works Fund has been:—

Year.	Immigration.	Railways.	Roads.	Development of Goldfields.	Telegraph Extension.	Public Buildings.	Lighthouses, &c.	Other Services.	Totals.
	£	£	£	£	£	£	£	£	£
1884-85...	57,148	663,063	317,043	8,029	25,799	117,361	34,033	114,251	1,336,727
1885-86...	11,675	725,496	335,904	9,032	36,010	86,859	133,975	136,435	1,475,386
1886-87...	12,454	615,265	278,617	7,665	18,952	89,598	148,705	162,228	1,333,484
1887-88...	15,598	403,726	219,519	1,016	22,984	90,529	76,825	135,962	966,159
1888-89...	8,791	272,077	106,440	55	12,047	34,592	47,593	132,344	613,939
1889-90...	867	289,572	84,126	284	16,340	35,473	9,434	46,362	482,464
1890-91...	1,823	180,030	71,289	821	16,292	22,819	2,666	39,026	334,756
1891-92...	817	154,416	101,605	2,257	27,773	34,791	7,347	62,495	391,501
1892-93...	242	220,894	105,506	3,811	29,245	31,101	11,206	60,502	462,506
1893-94...	343	176,304	147,418	5,272	16,127	44,032	6,588	10,713	406,797
1894-95...	101	247,545	61,757*	5,865	19,229	54,190	3,145	9,578	401,410*
1895-96...	*Cr.* 10	197,105	66,774*	9,345	35,538	76,529	7,410	19,639	412,330*
1896-97...	301	207,231	64,292*	10,508	36,791	70,579	11,600	26,683	427,985*
1897-98...	70	351,600	290,777†	33,117	29,384	73,585	5,295	81,715	865,543†
1898-99..	105	374,141	295,534†	17,354	28,551	107,267	15,662	77,713	916,327†
1899-1900	385	417,937	285,532†	21,815	26,771	115,427	9,026	116,330	993,223†

* Exclusive of moneys spent on roads under Lands Improvement, Native Lands Purchase, and Government Loans to Local Bodies Accounts: £103,076 in 1894-95, £162,757 in 1895-96, £173,358 in 1896-97.

† The expenditure on roads under the first two Acts mentioned above (*) is included as part of Public Works Fund; the sum of £18,770 was also spent out of Loans to Local Bodies Account on roads to open up Crown lands in 1897-98, £16,972 in 1898-99, and £31,363 in 1899-1900. These moneys have been excluded, as have also small sums expended in roading, &c., the Cheviot Estate.

Conversion Account.

Three per cent. stock to the value of £193,690 was inscribed during the year 1899-1900, which began with a debit balance of £2,211 in this account. Of this sum £26,690 were applied to the conversion of (£25,400) loans, and £116,306 to paying off debentures. Expenses, the chief items of which were discount (£5,908), stamp duty (£1,808), brokerage and commission (£415), absorbed £8,581, leaving a credit balance in this account of £39,902 on the 31st March, 1900.

On the total (£25,400) conversions, premiums ranging from 4 to 17 per cent. and amounting in all to £1,290 were paid.

The interest-charge on the debentures prior to conversion into 3-per-cent. inscribed stock averaged slightly over 4 per cent. per annum, so that by the year's operations the annual expenditure under this head has been lessened by £222.

Loans for Government Advances to Settlers.

A notable feature in the legislation of the year 1894 was the passing of the Government Advances to Settlers Act, a description of which, with its amending Acts and the loan operations under the same, will be found in part III.

The applications for loans and the loans authorised to the 31st March, 1900, classified according to provincial districts, are shown in tabular form :—

Provincial Districts.	Applications for Loans.		Loans authorised.		
	Number of Applications.	Amount of Loans applied for.	Number of Applications.	Amount applied for.	Amount of Advances authorised.
		£		£	£
Auckland	2,380	679,938	1,607	490,876	431,575
Taranaki	1,220	432,862	1,086	393,662	350,825
Hawke's Bay ..	836	249,050	638	193,775	172,500
Wellington	2,503	928,661	2,070	820,037	716,083
Marlborough ..	327	120,252	236	89,567	80,650
Nelson	219	79,060	150	48,915	43,115
Westland	207	57,580	99	25,205	22,545
Canterbury	961	268,752	728	213,287	178,145
Otago	2,342	894,878	1,838	737,546	638,002
Totals	10,995	3,711,033	8,452	8,012,870	2,633,440

Of the 8,452 advances authorised, 1,004 applicants declined the grants (£454,000) offered them, so that the net advances to the 31st March, 1900, numbered 7,448, and amounted to £2,179,440.

About sixty per cent. of the total amount applied for was for the purpose of paying off existing mortgages at rates of interest higher than 5 per cent.

Of the total applications 9,211 were for advances under £500 in value and 1,784 over, while of the advances authorised 6,944 did not exceed £500, only 1,508 being over that amount.

The liabilities and assets at 31st March, 1900, of the Government Advances to Settlers Office were :—

Dr. *Liabilities.*	£	s.	d.	Cr. *Assets.*				£	s.	d.
3-per-cent. Loan, redeemable 1st April, 1945, "A"	1,500,000	0	0	Investment Account— Advances on mortgages	£2,087,565	0	0			
3-per-cent. Loan, redeemable 1st April, 1945, "B"	500,000	0	0	Less repayments	340,235	10	3	1,747,329	9	9
Suspense Account	3,174	19	11	Temporary investments, Bank of New Zealand guaranteed stock				4,836	17	0
Accrued interest payable	198	13	3	Temporary investments, aid to public works				50,000	0	0
Profit and Loss Account	26,394	14	10	Sinking Fund Investment Account with Public Trustee				49,678	15	3
				Assurance Fund invested with Public Trustee				2,199	19	10
				Mortgage instalments receivable, overdue				828	14	6
				Bills receivable (Prior's deficiency)				1,190	9	1
				Interest receivable, overdue				3,579	5	6
				" accrued				20,941	9	8
				Cash in hand and in bank				15,144	16	9
				Loan-flotation charges, "A"	£105,897	7	5			
				Loan-flotation charges, "B"	28,141	3	3	134,038	10	8
	£2,029,768	8	0					£2,029,768	8	0

"The Government Advances to Settlers Act Amendment Act, 1899," as an encouragement to the early payment of the prescribed instalments of interest on fixed loans, and of interest and principal on loans under the instalment principle, provides for a rebate to the mortgagor, which reduces his interest to 4½ per cent. in lieu of 5 per cent. per annum.

There are new alternative modes of disposing of moneys paid in advance laid down in this measure, but it is optional with mortgagors to adopt the new system instead of that previously in operation in respect of moneys paid before the commencement of the new Act, and which are held under the original arrangements.

Provision is made for the readjustment of loans by memorandum of adjustment, which gives elasticity to the system by treating the balance of principal due as a fresh loan granted for a new term.

The margin of security on loans is provided for as follows: In the case of fixed loans the amount of the loan is not to exceed three-fifths of the value of the security, while in case of loans under the instalment system on freehold security of first-class agricultural land, the amount of the loan is not to exceed two-thirds the value of the security; on other rural freeholds the limit is three-fifths.

Advances may now be made on the security of urban or suburban land, but on the instalment system only, and with limitation of amount to a maximum of two thousand pounds and a minimum of twenty-five.

Urban land is defined as that situate in a borough having a population of at least two thousand persons, and which is not used for farming, dairying, or market gardening. And suburban land means that which is situate in a borough having under two thousand people, or any town or vicinity, and which is not used for agricultural or dairying purposes as above referred to.

As to security for loans,—in the case of urban lands on which there are buildings, the amount of the loan is not to exceed three-fifths of the value of the land apart from the buildings, plus one-half of the value of the buildings apart from the land. When the land is suburban, having buildings thereon, the loan is not to exceed one-half of the value of the land apart from the buildings, plus one-half of the value of the buildings separately.

When the land be urban or suburban, but having no buildings, the loan is not to exceed one-half of the value of the land, and there is not to be any loan except for the erection of buildings, and to be by way of instalments as erection proceeds.

There is a further subdivision of the Act, under which special provisions are made for protecting the interests of the Advances to Settlers Department, with respect to other than freehold securities.

New Zealand Consols.

Another important financial Act, termed the New Zealand Consols Act, was passed in 1894, with the intention of providing further means of investment for the savings of persons resident in the colony. Some progress is being made in this class of deposits, which tends to show that the public may in time recognise the system as a means of safe and profitable investment of their savings. It is singular that deposits of moneys belonging to trust funds or minors are not more freely made. It is thought that the advantage of such an investment at a fair rate of interest and of a permanent character is not widely enough known.

Up to the 31st March, 1899, deposits amounting to £385,925 had been received in sums ranging from £5 to £150,000, and during 1899–1900 the deposits inscribed totalled £55,562, making the sum invested to the 31st March, 1900, £441,487.

The system of making deposits in New Zealand Consols is fully described in Part III.

Aid to Public Works and Land Settlement.

"The Aid to Public Works and Land Settlement Act, 1896," empowered the Colonial Treasurer to raise £1,000,000: in aid of the Public Works Fund to the extent of £500,000, and the Lands Improvement Account and the Native Lands Purchase Account, £250,000 each. The sum of £750,000, bearing interest at 3½ per cent. per annum, was raised locally at par (£500,000 being issued with an alternative currency of ten or twenty-five years); the balance of £250,000 being placed upon the London market in the form of 3-per-cent. inscribed stock, along with the further loan referred to in the succeeding paragraph.

The Aid to Public Works and Land Settlement Act Amendment Act, passed in 1897, authorised the raising of an additional sum of £250,000 to be applied for the purpose of procuring £200,000 for further rolling-stock for railways, and for the repair of damages to lines by floods or otherwise; £25,000 for erection and repair of public-school buildings, and another sum of £25,000 for purposes of building and equipment of technical schools.

"The Aid to Public Works and Land Settlement Acts Amendment Act, 1898," provided for raising £500,000 in addition to £250,000 raised under the Amendment Act of 1897, and the £1,000,000 under the principal Act of 1896, the provisions of which extend to the later Act.

Of £500,000 which was paid to the Public Works Fund the amount of £175,000 was allocated to railways construction, £200,000 was for new rolling-stock for open railways, and £125,000 for the construction of roads, bridges, and other works authorised.

"The Aid to Public Works and Land Settlement Act, 1899," empowers the Colonial Treasurer, upon the authority of the Governor-in-Council, to raise from time to time, in the colony or elsewhere, such sums of money as he thinks fit, not exceeding altogether the sum of one million pounds sterling. The money is raised by means of debentures or scrip, or by the creation or issue of inscribed stock, under the New Zealand Consolidated Stock Act, 1877.

There is provision for obtaining what money is wanted, pending the raising of the money authorised, by the sale, &c., of short-dated debentures, which are to bear interest not exceeding 4 per cent. per annum, and to have a currency of not more than seven years—but the interest on the money finally raised is limited to three and a-half per cent.

All the money raised under the Act is to be placed to the credit of the Public Works Fund, to be applied to the following works and purposes:

	£
1. Railways—	
Railway construction	300,000
Additional rolling stock, &c., for open lines ..	225,000
2. Land settlement and goldfields development—	
The construction of roads and bridges to open up back blocks, &c.	150,000
Also, for opening up Crown and Native lands ..	150,000
Also, for developing goldfields	50,000
3. Public and technical school buildings	50,000
4. Purchase of native lands	50,000
5. Contingent harbour defence	25,000
	£1,000,000

Loans under Land for Settlements Acts.

The moneys raised under these Acts and the operations by way of purchasing estates to be cut up for close settlement form the subject of a special section of this part of the Year-book (No. XX.).

"The Government Loans to Local Bodies Act Amendment Act, 1899."

In view of the general lowering of rates of interest, this new Act modifies the terms of the principal Act by providing in respect of the debentures of any future loan, instead of interest payable at 5 per cent. for a term of twenty-six years, one or other of the following alternatives:—

Four and a half per cent. per annum for a term of twenty-six years; or
Four per cent. per annum for a term of thirty-two years; or
Three and a half per cent. per annum for a term of forty-one years.

The loans in existence at the passing of the Act may be readjusted so as to come under one or other of the alternatives under the new amendment quoted above.

The rate of 1½ per cent. per annum, which under the Act of 1892 forms the basis for calculating the amount payable to the Sinking Fund is now reduced to 1 per cent. per annum if the term of the loan is thirty-two years, and ½ per cent. if the term is for forty-one years.

SECTION XXI.—FINANCE—*continued.*

SUBSECTION B.—TAXATION.

THE direct taxation prior to 1892 consisted of a property-tax of 1d. in the pound on all assessed real and personal property (with an exemption of £500), and the stamp duties; but in 1891 a Land and Income Assessment Act was passed repealing the property-tax. A full description of the system of the land- and income-tax will be found in a special article in Part III. of this work. The leading features only are briefly stated here.

The Assessment Act of 1891 provides for an ordinary land-tax on the actual value of land, and an owner is allowed to deduct any amount owing by him secured on a registered mortgage. Under the original Act the deduction for improvements might not exceed £3,000; but, by the Amendment Act of 1893, the value of all improvements whatsoever is exempted from liability to land-tax. Besides this, an exemption of £500 is allowed when the balance, after making deductions as above stated, does not exceed £1,500; and above that a smaller exemption is granted, but ceases when the balance amounts to £2,500. Mortgages are subject to the land-tax. The revenue from the ordinary land-tax is, in round numbers, about £214,000 per annum. The rate of ordinary land-tax for 1899–1900 was 1d. in the pound. Occupied Native land is taxed ½d. in the pound on the unimproved value.

In addition to the ordinary land-tax, there is a graduated land-tax which commences when the unimproved value is £5,000. For the graduated land-tax, the present value of all improvements is deducted; but mortgages are not deducted. The Act of 1893, while reducing the ordinary taxation on land by exempting all improvements, increased the graduated tax, and the revised rates are now one-eighth of a penny in the pound sterling when the value is £5,000 and is less than £10,000, from which the rate increases with the value of the property by further steps of an eighth of a penny until the maximum of 2d. in the pound is reached, payable when the value is £210,000, or exceeds that sum.

This graduated tax yields, in round numbers, £80,000 per annum, which is not included in the sum of £214,000 given above. Twenty per cent. additional tax is levied in case of persons who have been absent from the colony for three years or more prior to the passing of the yearly taxing Act. This amounts to about £1,000, and is included in the £80,000 shown above.

Income-tax is levied on all incomes above £300, and from taxable incomes a deduction of £300 is made. The rate of income-tax for

1899–1900 was 6d. in the pound on the first taxable £1,000, and 1s. in the pound on taxable incomes over £1,000.

Companies pay 1s. in the pound, and are not allowed the £300 exemption. The Act of 1893 further disallowed the £300 exemption in the case of persons not domiciled in New Zealand.

The revenue derived from income-tax may be roughly set down at £128,700 per annum.

The indirect taxation is made up of Customs duties, and excise duty on beer made in the colony.

The following statement shows the total amount raised by the General Government taxation in 1885, 1890, and the last five financial years ending 31st March :—

	Amount of Revenue raised by Taxation.	Amount per Head of Population (excluding Maoris).
	£	£ s. d.
1885	2,016,730	3 10 10
1890	2,173,985	3 10 0
1895–96	2,335,761	3 7 1
1896–97	2,521,911	3 11 0
1897–98	2,678,576	3 13 11
1898–99	2,707,099	3 13 3
1899–1900	2,891,126	3 16 10

The average annual amount of revenue raised by taxation during the nine years, 1882 to 1890 inclusive, was £3 8s. 11d. per head of population, excluding Maoris.

It may be well to call attention to the fact that a rise in the amount of taxation per head of population may indicate (outside the question of increasing the rate of any particular tax levied) a satisfactory condition of business, as showing activity. In regard to the Customs, notwithstanding modifications of the tariff in 1895, the value of the imports for 1899–1900 was greater than for 1897–98 or 1898–99, which would seem to show greater purchasing power than before, and that profits of trade would still allow of a large amount of duty being paid. The quantity of stocks in hand at the beginning and end of the two years, and any disturbance in prices during the period, may modify the above argument.

As the Maoris contribute somewhat to the Customs revenue, an allowance should be made on that account to ascertain more correctly the amount of taxation per head of the rest of the people. By including Maoris the Customs and excise duties per head of the rest of the population would be reduced by 2s. 11d. for the year 1899–1900. If this amount be deducted from the taxation per head given for that year, the rate would be reduced from £3 16s. 10d. to £3 13s. 11d. This latter rate may fairly be used for comparison with the rates in the neighbouring colonies.

Of the total amount of taxation stated for the year 1899–1900, the indirect taxation, *i.e.*, Customs and excise duties, amounted to £2,187,859, while land- and income-tax, with stamps for taxation, yielded £703,267, which constitutes direct taxation. So that the colony still raises more than 75 per cent. of its revenue from taxation by means of the indirect method.

A table of the Customs tariff is given in detail in Part I. of this book (pp. 71–85), and the duties leviable upon estates of deceased persons on page 88.

Growth of Amount paid in Income Tax.

The amounts paid by way of income tax, under a uniform rate of taxation, show great increase year by year, and afford satisfactory evidences of prosperity. These are quoted with a caution in regard to the figures for 1892 to 1895. The full number of persons properly liable to the tax may not have been ascertained at such time.

	Income-tax paid.		Income-tax paid.
	£		£
1892–3 ..	67,367	1896–7 ..	105,504
1893–4 ..	75,238	1897–8 ..	115,210
1894–5 ..	89,891	1898–9 ..	115,480
1895–6 ..	92,778	1899–1900 ..	128,721

The increase from 1895–6 to 1899–1900 is £35,943, being a rate of 38·74 per cent., while the population increased during the same period by 7·88 per cent.

Taxation by Local Governing Bodies.

The various local bodies levied taxation during the year ended 31st March, 1899, to the amount of £782,531, or £1 1s. 2d. per head of European population. Of the total sum, £467,106 was raised by general rates, £218,664 by special and separate rates, £76,008 by licenses, and £20,753 by other taxes.

Taxation in Australasian Colonies.

The following were the rates of General Government taxation per head of population in the Australasian Colonies for 1898–9, specifying the proportions derived from Customs and other taxes:—

Colonies.	Rate of Taxation per Head of Mean Population.			Proportion of Taxation from Customs and Excise Duties.	Ratio of Taxation by Customs to Value of Imports.
	Customs and Excise.	Other Taxes.	Total.		
	£ s. d.	£ s. d.	£ s. d.	Per Cent.	Per Cent.
Queensland ..	3 0 3	0 10 0	3 10 3	85·79	21·44
New South Wales	1 4 1	0 13 11	1 18 0	63·38	5·11
Victoria ..	1 18 0	0 13 11	2 11 11	73·19	11·38
South Australia	1 14 2	0 17 1	2 11 3	66·73	9·24
Western Australia	5 3 2	0 7 9	5 10 11	92·98	17·10
Tasmania ..	2 9 0	0 12 11	3 1 11	79·11	24·58
New Zealand (excluding Maoris)	2 15 3	0 18 0	3 13 3*	75·40	23·83

* Or, including the Maoris, £3 10s. 5d. See remarks on previous page.

SECTION XXI.—FINANCE—*continued.*

SUBSECTION C.—PUBLIC DEBT.

THE gross public debt of the colony on the 31st March, 1900, was £47,874,452, an increase of £936,446 on the amount owing at the end of the preceding financial year. A detailed statement of particulars relative to the various loans is supplied.

The total increase by the issue of debentures and conversion operations during the year was £1,021,446. On the other hand, debentures and stock amounting to £85,000 were redeemed, leaving, as stated before, a net increase to the gross public debt of £936,446.

The particulars of the items of increase are clearly shown below:—

	£		£
Debentures issued for—		Debentures redeemed—	
Aid to public works and land settlement	300,000	Aid to Public Works and Land Settlements Acts, 1896 and 1898	85,000
Loans to local bodies	115,500		
Purchase of land for settlement	448,000	Gross debt on 31st March, 1900 ...	47,874,452
Sinking-fund accretions ...	50,400		
Inscription—			
New Zealand Consols	55,562		
Conversion operations... ...	51,984		
	1,021,446		
Gross debt, 31st March, 1899	46,938,006		
	£47,959,452		£47,959,452

The following table of the public debt of New Zealand states the debentures and stock in circulation on 31st March, 1900, under the several Loan Acts or Ordinances of the Colonial and Provincial Governments, the dates when redeemable, the sinking funds accrued in respect of the same, and the annual charge thereon for interest and sinking fund:—

PUBLIC DEBT ON 31ST MARCH, 1900.

—	Amount Outstanding.		Due Date.	Sinking Funds Accrued	Net Indebtedness.	Annual Charge.				Remarks.
						Rate.		Amount.	When payable.	
						Int.	S.F.			
	£	£		£	£	℘ c.	℘ c.	£		
New Zealand Loan Act, 1863 ..	...	266,300	15 July, 1914	123,303	142,997	5	1	15,978	15 Jan. and 15 July.	
Consolidated Loan Act, 1867 ...	...	389,700	Ann. drawing	...	389,700	5	...	19,485	Quarterly, 15 Jan., &c.	
Immigration and Public Works Loan Act, 1870	...	1,000,000*	1 June, 1907	610,826	389,174	4	2·4	64,000	1 June and 1 Dec.	Sinking Fund payable 18 Mar. and 13 Sept.
Canterbury Loan Ordinance, 1862	3,800 12,200	16,000	2 Jan., 1915 2 July, 1916	11,788	4,212	6	1	1,120	30 June and 31 Dec.	
Otago Loan Ordinance, 1862 ...	...	400	1 July, 1898	...	400	...	...	...	...	Debentures not presented for payment.
Consolidated Loan Act, 1867 ...	...	13,000	15 April, 1913	..	13,000	4	...	520	15 April and 15 Oct.	
Immigration and Public Works Loan Act, 1870	363,000 27,900	390,900	15 April, 1913 15 April, 1918	... ...	363,000 27,900	4 4½	... ...	14,520 1,256	15 April and 15 Oct. 15 April and 15 Oct.	
Defence and other Purposes Loan Act, 1870	25,000 75,000	100,000	1 July, 1910 15 April, 1918	... ...	25,000 75,000	4½ 4	... ...	1,125 3,000	30 June and 31 Dec. 15 April and 15 Oct.	
General Purposes Loan Act, 1873	17,400 10,800 54,700	82,900	15 Oct., 1913 15 May, 1914 28 Nov., 1914	... ...	17,400 10,800 54,700	4 4 5	... ...	696 432 2,735	15 April and 15 Oct. 15 May and 15 Nov. 15 May and 15 Nov.	
District Railways Purchasing Acts, 1885-86	40,000 97,100	137,100	1 July, 1909 1 April, 1905	... ...	40,000 97,100	6 4	... ...	2,400 3,884	1 April and 1 Oct.	
Carried forward ...	...	2,396,300	...	745,917	1,650,383	...	...	131,151		

* Only £200,000 has actually been issued to the public; the unsold debentures are available for the purpose of obtaining temporary advances from time to time.

PUBLIC DEBT ON 31ST MARCH, 1900—*continued*.

—	Amount Outstanding.		Due Date.	Sinking Funds Accrued	Net Indebtedness.	Annual Charge.			
						Rate.		Amount.	When payable.
						Int.	S.F.		
	£	£		£	£	₩ c.	₩ c.	£	
Brought forward ...	...	2,396,300	...	745,917	1,650,383	...	...	131,151	
Government Loans to Local Bodies Act, 1886	...	442,600	31 Dec., 1900	198,458*	244,142	3½	1½	35,814†	1 Mar. and 1 Sept.
Consolidated Stock Act, 1877	...	29,150,302	1 Nov., 1929	...	29,150,302	4	...	1,166,012	1 May and 1 Nov.
	...	6,161,167	1 Jan., 1940	...	6,161,167	3½	...	215,641	1 Jan. and 1 July.
	...	5,855,810	1 April, 1945	...	5,855,810	3	...	175,674‡	1 April and 1 Oct.
Consolidated Stock Act, 1884—Colonial Issue	...	104,700	1 Sept., 1905	...	104,700	3½	...	3,664	1 Mar. and 1 Sept.
Naval and Military Settlers' and Volunteers' Land Act, 1892	...	320	31 Oct., 1899	...	320§	...	...	...	...
Native Land Purchases Act, 1892	...	125,000	31 Oct., 1906	...	125,000	3½	..	4,375	30 April and 31 Oct.
Land for Settlements Act, 1892	...	45,276	31 Oct., 1906	...	45,276	3½	..	1,585	30 April and 31 Oct.
Land for Settlements Acts, 1894, 1897, and 1899	739,490	1,536,490	31 Oct., 1906	...	739,490	3½	...	25,882	30 April and 31 Oct.
	349,000		1 April, 1909	...	349,000	3¾	...	13,088	1 April and 1 Oct.
	62,000		1 April, 1909	...	62,000	3½	...	2,170	1 April and 1 Oct.
	30,000		31 Oct., 1906	...	30,000	3½	...	1,050	30 April and 31 Oct.
	300,000		1 April, 1902	...	300,000	4	...	12,000	1 April and 1 Oct.
	56,000		1 April, 1905	...	56,000	4	...	2,240	1 April and 1 Oct.
Lands Improvement and Native Lands Acquisition Act, 1894	...	400,000	30 Sept., 1908	...	283,000	4	...	11,320	31 Mar. and 30 Sept.
					117,000	3½	...	4,095	31 Mar. and 30 Sept.
New Zealand Consols Act, 1894	...	441,487	1 Feb., 1910	...	441,487	3½	...	15,452	1 Feb. and 1 Aug.
Aid to Public Works and Land Settlement Act, 1896, and Amendment Acts, 1897, 1898, and 1899	250,000	1,215,000	1 Feb., 1902	...	250,000	3½	..	8,750	1 Feb. and 1 Aug.
	500,000		15 Aug., 1921‖	...	500,000	3½	...	17,500	15 Feb. and 15 Aug.
	15,000		31 Oct., 1903	...	15,000	¶	...	525	...
	150,000		4 Jan., 1904	...	150,000	¶	...	5,250	...
	100,000		15 Jan., 1905	...	100,000	¶	...	3,500	...
	100,000		15 Feb., 1905	...	100,000	¶	...	3,500	...
	100,000		15 Mar., 1905	...	100,000	¶	...	3,500	...
Totals	...	47,874,452	...	944,375	46,930,077	...	...	1,863,738	

Treasury Bills amounting to £700,000 are not included.

Remarks.

* Represents the accrued Sinking Fund in respect of the total amount issued under "The Government Loans to Local Bodies Act, 1886," of which £912,300 has been converted into Consolidated Stock debentures.

† The Sinking Fund is payable on £1,354,900; the Land Assurance Fund is also charged with ½ per cent. as a contribution towards Sinking Fund.

‡ £60,000 of this amount will be recouped by the Government Advances to Settlers Office.

§ Debentures not presented for payment.

‖ Loan may be paid off at any time after 15th February, 1907, on six months' notice being given.

¶ ½ per cent. over bank rate; varying interest, calculated at 3½ per cent.

Net Indebtedness: Comparison with past Years.

The net public debt, after deducting the accrued sinking fund (£944,128), was on 31st March, 1900, £46,930,324, an increase of £849,597 during the year. More than eight years' revenue, ordinary and territorial, at the present rate would thus be required to pay off the net debt of the colony. The net indebtedness per head of population for 1899–1900 is greater than in 1898–99 by 2s. 11d. In March, 1890, it stood at £60 5s. 3d.; in 1891, £59 11s. 10d.; in 1892, £59 2s.; in 1893, £58 2s. 7d.; in 1894, £57 8s. 10d.; in 1895, £57 9s. 9d.; in 1896, £60 2s. 4d.; in 1897, £60 13s. 9d.; in 1898, £60 4s. 11d.; in 1899, £61 14s. 4d.; and in 1900, £61 17s. 3d But, when considering the increase of the amount of debt per head as a burden on the people, regard should be paid to the effect of conversions on the amounts paid by way of charges of the public debt out of the revenue year by year. Remarks on this subject are made, and figures given, further on, under the head of interest and sinking funds; also previously under revenue, which is shown to have been relieved substantially since the year 1890.

Years ended 31st March.	Estimated Population.	Amount of Debentures and Stock in Circulation.	Gross Indebtedness per Head of European Population.			Amount of Sinking Fund accrued.	Net Indebtedness.	Net Indebtedness per Head of European Population.		
		£	£	s.	d.	£	£	£	s.	d.
1890 ..	618,657	38,667,950	62	10	1	1,386,185	37,281,765	60	5	3
1891 ..	626,658	38,830,350	61	19	4	1,487,042	37,343,308	59	11	10
1892 ..	637,472	38,713,068	60	14	8	1,037,862	37,675,206	59	2	0
1893 ..	656,187	39,257,840	59	16	7	1,113,770	38,144,070	58	2	7
1894 ..	676,747	39,826,415	58	17	0	951,924	38,874,491	57	8	10
1895 ..	689,475	40,386,964	58	11	6	751,932	39,635,032	57	9	9
1896 ..	703,187	43,050,780	61	4	5	778,891	42,271,889	60	2	4
1897 ..	717,649	44,366,618	61	16	5	814,294	43,552,324	60	13	9
1898 ..	731,713	44,963,424	61	9	0	881,903	44,081,521	60	4	11
1899 ..	746,673	46,938,006	62	17	3	857,279	46,080,727	61	14	4
1900 ..	758,616	47,874,452	63	2	2	944,375	46,930,077	61	17	3

The debt of the colony as above stated does not include the unpaid loans raised by the several local bodies, amounting at the end of March, 1899, to £6,963,254, of which sum £5,485,100 was raised outside the colony. These are referred to in dealing with the finance of local bodies.

Increase of Gross Public Debt.

The increase of the gross public debt since the 31st March, 1891, amounts to £9,044,102. A schedule of items composing this sum is subjoined. It shows the purposes to which the money raised has been or is being devoted. The largest item is £2,000,000 raised for advances to settlers, which represents investments by the Government bearing interest and lent on continually improving security, the principal being repaid by instalments.

Other items which may be considered to represent interest-bearing investments are those under the heads "Land Settlement," "Native Land Purchases," "Loans to Local Bodies," "Lands Improvement," "N.Z. Consols," and "Bank of N.Z. Preferred Shares."

		£
Gross Public Debt, 31st March, 1900		47,874,452
" 31st March, 1891		38,830,350
Increase		£9,044,102
	£	
Native Land Purchases	649,700	
Land Settlement (including Cheviot) ..	1,856,566	
Loans to Local Bodies	1,029,900	
Lands Improvement	500,000	
Advances to Settlers	2,000,000	
Bank of N.Z. Preferred Shares ..	500,000	
N.Z. Consols	441,487	
District Railways	47,000	
Public Works	1,635,000	
Increase by Conversions	678,712	
Sinking Fund Accretions	1,354,900	
Naval and Military Settlers	27,226	£
		10,720,491
Less Redemptions—		
Consolidated Stock Act, 1884, Debentures	1,260,420	
Other Debentures	415,969	
		1,676,389
Total net increase		£9,044,102

Interest and Sinking Fund.

Of the total amount of outstanding public debt at the end of March, 1900—viz., £47,874,452—more than thirty-one millions sterling bore interest at the rate of 4 per cent., over nine millions sterling at 3½ per cent., and nearly six millions sterling at 3 per cent. The following are the rates of interest payable on the complete public debt:—

Rates of Interest.	Amount at each Rate.
	£
6 per cent.	56,000
5 per cent.	710,700
4½ per cent.	52,900
4 per cent.	31,365,602
3¾ per cent.	349,000
3½ per cent.	9,483,720*
3 per cent.	5,855,810
Nil	720†
Total	£47,874,452

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* Including £465,000 on which the interest paid was one quarter per cent. over bank rate: varying rate averaging 3½ per cent.

† Debentures not presented for payment.

The total amount of *interest* payable to bondholders on the full amount of the public debt as quoted above is £1,816,592, which gives an average rate of £3 15s. 11d. per £100. On the total public debt outstanding on the 31st March, 1891, the average interest charge was £4 10s. 3d. per £100. During the period 1891–1900, therefore, the average rate is found to have declined nearly 16 per cent.

The above refers to interest payable to bondholders only, and has nothing to do with sinking fund requirements, which are included in the whole annual charge of the public debt.

The *actual payments* during six years for interest *and sinking fund* are shown hereunder, together with the percentage of ordinary and territorial revenue absorbed by the public debt charges:

Year ended 31st March.	Amounts actually paid for Interest and Sinking Fund.					Rate per Head of Mean Population.	Percentage of Revenue absorbed by Public Debt Charges.
	Public Debt.			Treasury Bills.	Total.		
	Interest.	Sinking Fund.	Total.	Interest.			
	£	£	£	£	£	£ s. d.	
1895	1,619,925	57,970	1,677,904	38,985	1,716,889	2 10 3	38·96
1896	1,602,928	41,188	1,644,116	39,659	1,683,775	2 8 4	36·96
1897	1,630,577	41,858	1,672,435	37,034	1,709,469	2 8 2	35·62
1898	1,663,697	48,380	1,712,077	29,336	1,741,413	2 8 1	34·28
1899	1,689,749	44,651	1,734,400	33,068	1,767,468	2 7 10	33·61
1900	1,674,618	46,073	1,720,691	28,703	1,749,394	2 6 6	31·07

Note.—The alteration made in 1894-95 of the system which previously obtained in [illegible] with the drawing loan of 1867 has affected the comparison of the figures for the [illegible] years with those preceding. The total amount actually paid for interest and sinking fund in [illegible] was, under the old system, £1,897,602. The figures for each of the [illegible] 31st March [illegible] to 1894 inclusive, will be found in the Year-book for 1899.

The amount actually paid for interest and sinking fund during 1899-1900 was £18,074 less than that for the previous year, and the rate of charge per head of population decreased considerably, notwithstanding the increase of the public debt by [illegible],446. Savings in interest-charge effected by conversions have assisted to bring about this satisfactory [illegible]

[illegible] of the burden on the public revenue by the lessening of the public debt is shown in the last column of the [illegible]

[illegible] which the sinking funds were held, as on the [illegible] specified in the statement following:—

STATEMENT of the SECURITIES in which the SINKING FUNDS of the several LOANS were invested on the 31st March, 1900.

Investments in—	£	s.	d.
New Zealand 5-per-cent. Debentures	3,470	0	0
„ 4½-per-cent. Debentures	1,700	0	0
„ 4-per-cent. Inscribed Stock	120,731	16	7
„ 3½-per-cent. Inscribed Stock	2,571	3	7
County of Tauranga 5-per-cent. Debentures	60	0	0
Borough of Brunner 6-per-cent. Debentures	840	0	0
Borough of Hokitika 6-per-cent. Debentures	1,860	0	0
Borough of Patea 4½-per-cent. Debentures	200	0	0
Borough of Tauranga 5-per-cent. Debentures	200	0	0
Borough of Thames 5½-per-cent. Debentures	900	0	0
Westport Harbour Board 4-per-cent. Debentures	550	0	0
Waimakariri-Ashley Water-supply Board 5-per-cent. Debentures	320	0	0
Wellington and Manawatu Railway Company 5-per-cent. Debentures	540	0	0
Government Loans to Local Bodies 3¾ per-cent. Debentures	520	0	0
Mortgages	103,300	0	0
New South Wales 4-per-cent. Debentures	20,800	0	0
New South Wales 4-per-cent. Stock	5,486	6	7
New South Wales 3½-per-cent. Stock	84,269	13	4
New South Wales 3-per-cent. Stock	37,781	7	0
Victoria 4-per-cent. Debentures	21,800	0	0
Victoria 4-per-cent. Stock	43,233	17	4
Victoria 3½-per-cent. Stock	77,009	4	1
Victoria 3 per cent. Stock	8,444	13	7
South Australia 4-per-cent. Debentures	24,700	0	0
South Australia 4-per-cent. Stock	4,851	0	5
South Australia 3½-per-cent. Stock	38,068	11	6
South Australia 3-per-cent. Stock	63,568	1	5
South Australia 3-per-cent. Consols	22,253	14	5
Canada 4-per-cent. Debentures	18,200	0	0
Canada 4-per-cent. Stock	60,000	0	0
Canada 3½-per-cent. Stock	34,022	11	8
Canada 3-per-cent. Stock	32,670	17	3
Canada 2½ per-cent. Stock	13,666	15	11
	848,589	14	8
Cash balance on 31st March, 1900	95,786	0	3
Total	£944,375	14	11

Flotation of Loans.

Of the gross public debt of the colony outstanding on 31st March, 1900, £43,299,679 were raised in London, £181,600 in Australia, and £4,393,173 in New Zealand; and of the total amount £41,608,766 were inscribed stock and £6,265,686 debentures. Details are given hereunder.

Kind of Stock.	London.	Floated in		Total.
		Australia.	New Zealand.	
Debentures	2,132,400	181,600	3,951,686	6,265,686
Inscribed Stock	41,167,279	..	441,487	41,608,766
Total	43,299,679	181,600	4,393,173	47,874,452

Prices of New Zealand Stock.

The highest and lowest London prices for the New Zealand 4, 3½, and 3-per-cent. stock, taken over a range of twelve years, are quoted:—

QUOTATIONS, NEW ZEALAND STOCK.

Year	4 per Cents.		3½ per Cents.		3 per Cents.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
1888	104½	96¼	..	..	..	..
1889	109¼	99⅝	..	..	..	..
1890	109⅛	102¼	98⅝	93¼	..	..
1891	107½	100	98¼	91⅛	..	..
1892	106⅝	100	98	91½	..	..
1893	107¼	97	97½	90	..	..
1894	109⅞	105⅜	103½	96¼	..	..
1895	113½	105⅝	107½	100	95¾	91
1896	118¼	106½	110⅜	101½	103½	90
1897	117	112⅜	111	104¾	102	99½
1898	116⅞	108	109⅞	103	101½	96½
1899	116½	105½	109	102	99¼	94¼

Prices of Australasian Stock.

The prices of stock of the Australasian Colonies in London for the years 1893 and 1897 show the position as affected by the financial and banking crisis in the former year, and the improvement that had taken place since 1893 and as late as 1897.

Colony	Year when Stock Redeemable.	Prices, 1893.*		Prices, 1897.	
		Highest.	Lowest.	Highest.	Lowest.
	4 PER CENTS.				
Queensland	1915–24	103½	89	116	111
New South Wales ..	1933	111	97½	123¾	117½
Victoria ..	1920	103¼	95	115	111⅛
South Australia ..	1917–36	105⅜	93	114½	111¼
Western Australia ..	1934	107½	102	123¾	120
Tasmania ..	1911†	102¾	97¼	110	105
New Zealand ..	1929	107¼	97	117	112⅜
	3½ PER CENTS.				
Queensland ..	1924	92¼	75	108⅝	104⅝
New South Wales .	1924	97⅛	83⅛	111½	107¾
Victoria ..	1928	93⅛	79¼	108⅜	104¼
South Australia ..	1939	96	85½	113½	109¾
Tasmania ..	1920–40§	96	84	111⅛	105½
New Zealand	1940	97½	90	111	104¾

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* Figures taken from Victorian Year-book, 1894.
† [illegible] Rate for week ending 19th May, time of Australian banking crisis.
§ [illegible] on or after 1st January, 1920, on giving twelve months' notice

Public Debt of Australasian Colonies, &c.

The following figures, which, with the exception of those for New Zealand, are taken from Mr. Coghlan's Australasian Statistics, [illegible] public debt of each colony in 1898 or 1899:—

Colony.	Date.	Public Debt.			Debt per Head of Population.		
		Fixed Debt.	Floating Debt.	Total.			
		£	£	£	£	s.	d.
Queensland ..	31 Dec., 1898	33,598,414	..	33,598,414	66	2	9
New South Wales	30 June, 1899	61,580,082	2,181,584	63,761,666	46	19	8
Victoria ..	30 June, 1899	49,264,277	1,115,000	50,379,277	42	16	2
South Australia ..	31 Dec., 1898	24,672,810	243,500	24,916,310	67	9	8
Western Australia	30 June, 1899	8,938,363	1,550,000	10,488,363	62	5	1
Tasmania ..	31 Dec., 1898	7,721,420	691,484	8,412,904	47	8	9
New Zealand ..	31 Mar., 1899	46,938.006	..	46,938,006	62	17	3*

* As shown previously (see page 398), the amount of accrued sinking fund reduces this by more than £1 per head.

The amount of indebtedness per head of population in December, 1898, in South Australia and Queensland was thus greater than that for New Zealand in March, 1899.

Public Works in New Zealand.

The burden of a public debt depends greatly on the measure in which it is expended on reproductive works, and on the degree of prosperity enjoyed by the people. The generally rugged character of this country, and the natural difficulties appertaining to the sites of many of the towns, soon necessitated a large outlay on roads and public works. The need was fully recognised, and to some extent met, by the Provincial Governments, which have justly received great credit for their far-seeing and liberal exertions. A great deal of road-making, often of a very costly character, was accomplished, harbour and other improvements begun, and immigration encouraged. Some railways were made in Canterbury, Otago, and Southland. The City of Christchurch and the Canterbury Plains were connected with the Port of Lyttelton by a railway, which required the construction of a long and very costly tunnel through the intervening range of hills. In Otago, private enterprise, backed by the guarantee of the Provincial Government, built a railway from Dunedin to Port Chalmers, and some miles of line were made in Southland from the town of Invercargill into the interior; but no general and comprehensive scheme of public works could be carried out by the separate exertions of the Provincial Governments. In 1870, therefore, the General Government brought forward its public-works and immigration policy, by which it was proposed to raise a loan of ten millions for the construction of main trunk railways, roads, and other public works of importance to the colony as a whole, as well as for the promotion of immigration on a large scale, the expenditure to be spread over a period of ten years. This policy was accepted by the Legislature, and embodied in "The Immigration and Public Works Act, 1870."

The demands for local railways and other works soon caused the original proposals to be exceeded, and entailed an expenditure at a much more rapid rate and to a far greater amount than was originally contemplated. Although many of the works undertaken have been directly unremunerative, yet the effect of the policy, as a whole, has been largely to develop the settlement of the country, and to increase enormously the value of landed property; land, in parts which before the construction of railways was valued at from £1 to £2 per acre, having been subsequently sold at prices varying from £10 to £20 per acre. Moreover, the railway and telegraph-lines yield a revenue which covers a large portion of the interest on their cost after paying working-expenses.

Utilisation of Money composing Public Debt.

A statement is supplied based on figures taken from the Colonial Treasurer's Budget of 1897 (to which the necessary additions have been made), showing the purposes for which the money forming the public debt of the colony was raised or voted.

But the amounts in the items must be regarded as only approximations to the actual facts. The information is merely indicative of the truth, and is a revision of what was given in the Year-book, 1899, which was found to be not as near to correctness as possible in places.

PUBLIC DEBT OF NEW ZEALAND, MARCH, 1900, SHOWING APPROXIMATELY THE AMOUNTS RAISED OR VOTED UNDER VARIOUS HEADS, ARRANGED IN FOUR CLASSES.

		On 31st March, 1900.
		£
(a.)	Railways	15,619,000*
	Lands improvement (roads and bridges)	4,595,000
	Public works and buildings	3,799,000
	Land purchases	2,150,000
	Immigration	2,459,000
	Maori war	2,357,000
	Defence	1,673,000
	Telegraphs	844,000
	Goldfields and coal-mines	783,000
	Lighthouses and harbours	495,000
(b.)	Advances to settlers	[illegible]
	Loans to local bodies	[illegible]
	Purchase of lands for settlement	[illegible]
	Bank of New Zealand preferred shares	[illegible]
	[illegible]	[illegible]
(c.)	[illegible]	
	[illegible]	[illegible]
	[illegible]	
(d.)	[illegible]	[illegible]
	[illegible]	[illegible]

[illegible] 31st March, 1900 [illegible] a total [illegible] purposes [illegible] —

[illegible]

[illegible]

The total sum is divided into four classes in the table, of which (*a.*) is composed of the various services above referred to, and the total of which forms 72·53 per cent. of the whole debt in 1900. Class (*b.*) consists of moneys devoted to what may be termed investments, being 12·80 per cent. of the total; (*c.*) moneys paid away in charges and expenses of raising loans, also to meet deficiencies of revenue, besides old provincial liabilities, 9·97 per cent.; and (*d.*), an amount of over two millions and a quarter sterling, set down as miscellaneous, and forming 4·70 per cent. of the debt.

The figures given as to railways do not include all the sums spent by the Provincial Governments, as stated in the note to the table, nor do the figures in some other items agree with those given elsewhere, made up from tables showing the expenditure out of the Public Works Fund, which, as previously explained, is aug-augmented by contributions from the Consolidated Revenue Account.

Expenditure out of "The Public Works Fund."

The net expenditure, under all heads, of the Public Works Fund from 1870 to the 31st March, 1900, can be given correctly, but this fund, as stated previously, is not altogether composed of money charged to the Public Debt. It had received £29,954,187 from loans and £3,164,188 by way of receipts in aid on the latter date. The money received by way of aid included £2,205,000, transferred from the Consolidated Fund during the last nine financial years, out of surplus revenue. Thirty-three millions sterling were spent since the year 1870 up to March last, and the items given below exhibit the nature of the works, &c., with amount for each.

NET EXPENDITURE OF PUBLIC WORKS FUND FROM 1870 TO 31 MARCH, 1900.

Expenditure on—	£
Immigration	2,147,505
Public Works, Departmental	446,384
Railways, including Surveys of New Lines ..	16,450,303
Roads	5,248,158
Land Purchases	1,936,282
Development of Goldfields	670,446
Telegraph Extension	856,057
Public Buildings	2,388,286
Lighthouses, Harbour-works, and Defences ..	959,096
Contingent Defence	512,310
Rates on Native Lands	63,553
Thermal Springs	14,600
Charges and Expenses of raising Loans ..	1,056,311
Coal-mines	10,835
Interest and Sinking Fund	218,500
Total	32,978,626

Expenditure on Railways.

The expenditure on railway-works has been kept within comparatively narrow limits during the last few years. The railway expenditure during each of six quinquennial periods since the initiation of the public-works policy has been as follows:—

	£
1st July, 1870, to 30th June, 1875	3,575,362
1st July, 1875, to 31st March, 1880	4,919,712
1st April, 1880, to 31st March, 1885	3,120,680
1st April, 1885, to 31st March, 1890	2,308,319
1st April, 1890, to 31st March, 1895	978,498
1st April, 1895, to 31st March, 1900	1,547,732
Total	16,450,303

This great diminution in expenditure has necessarily involved proceeding with the railways at a very much slower rate, and New Zealand's expenditure on railways is now, with one exception, that of Tasmania, the lowest per head of the population of any of the Australasian Colonies. The following table shows the cost of railway-works, the mileage, the average cost per mile, the population, and the cost per head of the population in the several colonies referred to:—

Colony.	Year ended	Cost of Construction of Open Lines.	No. of Miles of Line open.	Average Cost per Mile.	Estimated Population	Cost per Head of Population		
		£		£		£	s.	d.
Queensland ..	31 Dec., 1898	18,455,317	2,742	6,731	498,500	37	0	5
New South Wales	30 June, 1899	37,992,276	2,707	14,035	1,351,500	28	2	3
Victoria ..	30 June, 1898	38,593,205	3,113	12,397	1,169,400	33	0	1
South Australia*	30 June, 1898	13,919,258	1,870	7,443	369,300	37	13	10
West'n Australia	30 June, 1899	6,427,370	1,355	4,743	169,600	37	17	11
Tasmania ..	31 Dec., 1898	3,585,040	438	8,185	177,300	20	4	5
New Zealand ..	31 Mar., 1899	16,404,076	2,090	7,849	746,700	21	19	5

* Including Northern Territory.

In the foregoing table the cost per head of population for railway-construction is shown to have been between thirty-three and thirty-seven pounds sterling in the Colonies of Victoria, Queensland, South Australia, and Western Australia; in New South Wales it was over twenty-eight pounds; but in New Zealand and Tasmania the cost has been only a little over twenty pounds per head of population.

SUPPLEMENTARY.

THE ASSETS REALISATION BOARD.

ON page 298 reference is made to the establishment of an Assets Realisation Board for the purchase, in connection with the affairs of the Bank of New Zealand, of all the assets of the Estates Company and of the Auckland Agricultural Company.

The sales for the year ending 31st March, 1899, amounted to £105,318. The proportion of sales from the beginning (31st March, 1896, when the Board took office) to the book-cost of the whole of the estates (£2,731,706) was at that date 15·20 per cent. The land-tax valuation, plus 10 per cent. for sundry properties, and the General Manager's valuation for station properties, which together total £1,895,179, gave then a proportion of 21·91 per cent.

Further Realisations.

The General Manager reports that during the year ended 31st March last (1900) sales have been made in larger volume and to greater value than for the previous year, and embrace 46,429 acres of country lands realising £111,137, and town and suburban lands and sundries to the value of £43,300.

The enhanced value of produce and stock has been responded to in land, and prices hitherto unobtainable have been secured.

Nothing has been lost by the Board's policy of feeding the market in no greater quantity than could be absorbed at fair values, and the Board has succeeded in all cases in selling at or over reserve prices without difficulty.

The keenest inquiry experienced has been in the South Island, where certain of the Board's estates have been cut up and sold at considerable advance on the prices quoted for the estate as a whole, Glentui having far exceeded anticipations. It is certain that the concluding sale of Glentui freehold was well timed, and had the Board's operations not been somewhat precipitated by outside representations, and had no portion been sold prior to the 31st December, 1899, there would have been a considerable addition to the surplus on the property.

The sales for the year are as follow :—

	£
Land	154,437
Stock and implements on properties finally realised..	13,909
	£168,346

Land sales being £34,917 in excess of those for the previous year.

The sales for the period 1895–1900, including stock, amount to £583,571.

On 31st March the proportion of total sales from time of starting to the book-cost of all estates (£2,731,706) was 21·40; and to land-tax valuation, plus 10 per cent. for sundry properties, with the manager's valuation for station properties (which together total £1,895,179), it was 30·79.

Particulars of operations are—

	£
Sales of properties finally closed, 1895–1900 (including stock)	360,534
Properties partially sold, 1895–1900	223,037
	£583,571

The book-cost of the estates in respect of which the sales were finally closed was £518,506. These properties are shown above to have realised £360,534, leaving a deficiency of £157,972, including the realisation expenses, &c.

The localities in which sales have been made are shown hereunder:—

	Estates.	Farms.	Town Sections.	Suburban Properties.	£
Auckland ..	4	93	538	151	158,819
Hawke's Bay ..	..	..	9	..	2,304
Wellington ..	..	17	29	1	86,289
Marlborough ..	1	4	68	6	19,414
Canterbury ..	3	59	18	63	206,056
Otago	2	5	564	95	65,817
					538,699
Sundry proceeds: sales iron, furniture, fire insurance received, &c.					7,810
Stock sales on properties finally closed					37,062
					£583,571

SPECIAL BANKING LEGISLATION.

A SYNOPSIS of the Banking Acts under which guarantees have been given by the Government of New Zealand will be found on pages 296 to 299 *ante*.

MISCELLANEOUS STATISTICS.

I.—PROGRESS OF THE COLONY, YEARS 1899 AND 1891.

SUMMARY.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris), 31st December		756,505	634,058	122,447
Value of land and improvements—				
Unimproved value	(1898)	84,401,244	75,787,895	8,613,349
Value of improvements ..	(1898)	54,190,103	46,365,297	7,824,806
Land in cultivation—				
Holdings (in cultivation) ..	No.	*62,485	38,083	*24,402
Total area (including sown grasses and land in fallow, but excluding gardens and orchards (41,291 acres) and plantations of forest trees (48,942 acres))	Acres	12,474,511	8,462,495	4,012,016
In crops	„	1,542,458	1,285,768	256,690
In sown grasses	„	10,853,302	6,966,218	3,887,084
In fallow	„	78,751	210,509	−131,758
Live-stock—				
Horses	No.	261,931	211,040	50,891
Cattle	„	1,210,439	831,831	378,608
Dairy cows (included above) ..	„	343,556	206,906	136,650
Sheep	„	19,348,506	16,753,752	2,594,754

AUCKLAND PROVINCIAL DISTRICT, 1899-1891.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris)		165,793	134,724	31,069
Value of land and improvements—				
Unimproved value	(1898)	14,236,611	12,196,424	2,040,187
Value of improvements ..	(1898)	10,538,871	8,830,892	1,707,979
Land in cultivation—				
Holdings	No.	*14,806	8,608	*6,198
Total area (including sown grasses and land in fallow)	Acres	1,926,856	1,165,441	761,415
In crops	„	115,125	70,038	45,087
In sown grasses	„	1,794,481	1,060,741	733,740
In fallow	„	17,250	34,662	−17,412
Live-stock—				
Horses	No.	69,028	42,826	26,202
Cattle	„	335,744	234,306	101,438
Dairy cows (included above) ..	„	69,424	46,182	23,242
Sheep	„	2,082,121	1,500,102	582,019

NOTE.—The minus sign (−) signifies decrease.

*** The comparison is not quite a fair one, as in 1899 holdings of exactly one acre in extent, and certain holdings occupied by Maoris, have been included by the Department of Agriculture, which was not done in 1891.**

TARANAKI PROVINCIAL DISTRICT, 1899–1891.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris) ..		34,486	22,421	12,065
Value of land and improvements—				
Unimproved value	(1898)	4,064,510	2,982,644	1,081,866
Value of improvements ..	(1898)	2,913,888	1,529,045	1,384,843
Land in cultivation—				
Holdings	No.	*4,295	2,504	*1,791
Total area (including sown grasses and land in fallow)	Acres	726,697	308,072	418,625
In crops	"	25,022	15,380	9,642
In sown grasses	"	701,221	291,471	409,750
In fallow	"	454	1,221	−767
Live-stock—				
Horses	No.	17,471	10,915	6,556
Cattle	"	202,307	103,356	98,951
Dairy cows (included above) ..	"	70,011	26,951	43,060
Sheep	"	508,665	240,471	268,194

HAWKE'S BAY PROVINCIAL DISTRICT, 1899–1891.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris)		37,139	28,922	8,217
Value of land and improvements—				
Unimproved value	(1898)	6,747,043	6,704,820	42,223
Value of improvements ..	(1898)	4,273,864	3,864,044	409,820
Land in cultivation—				
Holdings	No.	*3,298	1,913	*1,385
Total area (including sown grasses and land in fallow)	Acres	1,762,598	1,085,454	677,144
In crops	"	38,457	36,218	2,239
In sown grasses	"	1,714,675	1,021,277	693,398
In fallow	"	9,466	27,959	−18,493
Live-stock—				
Horses	No.	18,324	13,480	4,844
Cattle	"	97,108	55,009	42,099
Dairy cows (included above) ..	"	13,324	9,039	4,285
Sheep	"	3,291,876	2,668,893	622,983

WELLINGTON PROVINCIAL DISTRICT, 1899–1891.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris)		132,420	99,098	33,322
Value of land and improvements—				
Unimproved value	(1898)	16,772,595	12,456,612	4,315,983
Value of improvements ..	(1898)	12,133,570	8,874,970	3,258,600
Land in cultivation—				
Holdings	No.	*9,977	5,808	*4,169
Total area (including sown grasses and land in fallow)	Acres	2,515,483	1,508,587	1,006,896
In crops	"	97,389	63,313	34,076
In sown grasses	"	2,416,232	1,440,893	975,339
In fallow	"	1,862	4,381	−2,519
Live-stock—				
Horses	No.	40,857	30,542	10,315
Cattle	"	234,526	155,466	79,060
Dairy cows (included above) ..	"	65,021	30,615	34,406
Sheep	"	4,070,737	2,750,461	1,320,276

NOTE.—The minus sign (−) denotes decrease.

* See note on page 409.

MARLBOROUGH, NELSON, AND WESTLAND PROVINCIAL DISTRICTS, 1899–1891.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris)—				
Marlborough Provincial District ..		13,499	12,964	535
Nelson Provincial District ..		38,142	35,154	2,988
Westland Provincial District ..		15,042	15,929	-887
Value of land and improvements—				
Unimproved value	(1898)	6,851,506	7,395,637	-544,131
Value of improvements ..	(1898)	3,937,702	3,555,449	382,253
Land in cultivation—				
Holdings	No.	*5,215	3,200	*2,015
Total area (including sown grasses and land in fallow)	Acres	805,532	475,860	329,672
In crops	"	75,758	55,431	20,327
In sown grasses	"	726,947	411,199	315,748
In fallow	"	2,827	9,230	-6,403
Live-stock—				
Horses	No.	15,436	15,181	255
Cattle	"	64,491	48,816	15,675
Dairy cows (included above) ..	"	19,761	13,759	6,002
Sheep	"	1,639,166	1,631,456	7,710

CANTERBURY PROVINCIAL DISTRICT, 1899–1891.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris)		145,058	129,901	15,157
Value of land and improvements—				
Unimproved value	(1898)	20,458,825	19,148,867	1,309,958
Value of improvements ..	(1898)	10,132,432	10,073,196	59,236
Land in cultivation—				
Holdings	No.	*10,965	7,563	*3,402
Total area (including sown grasses and land in fallow)	Acres	2,401,435	2,034,813	366,622
In crops	"	617,315	566,153	51,162
In sown grasses	"	1,769,871	1,409,785	360,086
In fallow	"	14,249	58,875	-44,626
Live stock—				
Horses	No.	47,104	47,567	-463
Cattle	"	89,242	82,058	7,184
Dairy cows (included above) ..	"	37,711	31,250	6,461
Sheep	"	4,040,456	3,559,533	480,923

OTAGO PROVINCIAL DISTRICT, 1899–1891.

		1899.	1891.	Increase.
Estimated population (exclusive of Maoris)		174,664	154,650	20,014
Value of land and improvements—				
Unimproved value	(1898)	15,270,154	14,902,891	367,263
Value of improvements ..	(1898)	10,259,776	9,637,701	622,075
Land in cultivation—				
Holdings	No.	*13,929	8,487	*5,442
Total area (including sown grasses and land in fallow)	Acres	2,335,910	1,884,268	451,642
In crops	"	573,392	479,235	94,157
In sown grasses	"	1,729,875	1,330,852	399,023
In fallow	"	32,643	74,181	-41,538
Live stock—				
Horses	No.	53,711	50,529	3,182
Cattle	"	186,991	152,820	34,171
Dairy cows (included above) ..	"	68,304	49,110	19,194
Sheep	"	3,715,485	4,402,836	-687,351

NOTE.—The minus sign (–) denotes decrease.

* See note on page 409.

The population of the Chatham and Kermadec Islands, which are not included in any provincial district, was 262 persons in 1899, and 295 in 1891.

II.—THE TOTALISATOR.

Year.	No. of Totalisator Licenses issued.	Days.	Percentage paid to Treasury.	Total Amount Invested by the Public.
			£	£
1889-90	187	241	..	..
1890-91	219	278	..	..
1891-92	234	300	7,591	506,078
1892-93	240	307	10,800	720,029
1893-94	247	318	10,375	691,673
1894-95	207	268	10,446	696,456
1895-96	170	256	11,156	743,763
1896-97	158	250	11,911	794,096
1897-98	155	268	13,237	886,567
1898-99	144	250	13,695	912,969
1899-1900	154	178	15·983	1,065,580

N.B.—The years used for purposes of the table are financial years, not the racing years. This accounts for the number of licenses issued in some of the periods being over the legal limit for one year.

III.—LICENSES UNDER THE GAMING AND LOTTERIES ACT, GRANTED TO RELIGIOUS DENOMINATIONS.

RETURN of LICENSES granted by the Colonial Secretary under "The Gaming and Lotteries Act, 1881," to Persons connected with Religious Denominations.

Year.	Total Number of Licenses granted.	Church of England.	Presbyterian Church.	Roman Catholic Church.	Jewish Church.	Not stated.
1894-95	46	9	10	23	..	4
1895-96	48	8	1	18	..	21
1896-97	62	30	3	29	..	..
1897-98	70	35	2	32	1	..
1898-99	40	14	..	26	..	..

PART III.—ARTICLES ON SPECIAL SUBJECTS.

SECTION I.

THE LAND SYSTEM OF NEW ZEALAND.

[By S. PERCY SMITH, F.R.G.S., Secretary for Crown Lands and Surveyor-General.]

THE Crown lands of New Zealand are administered under "The Land Act, 1892," together with its amendments and the regulations made thereunder.

The distinguishing features of the present land system are the outcome of ideas which have been gradually coming to maturity for some years past in this colony. These features involve the principle of State ownership of the soil, with a perpetual tenancy in the occupier. This, whatever may be the difference in detail, is the prevailing characteristic of the several systems under which land may now be selected. In New Zealand this tendency to State ownership has taken a more pronounced form than in any other of the Australasian Colonies, and the duration of the leases has become so extended as to warrant the name, frequently given to them, of "everlasting leases." In point of fact, most of the Crown lands are now disposed of for terms of 999 years. The rentals are based on the assessed value of the land at the time of disposal, without increase or recurring valuations. Under this system there is a fixity of tenure practically equal to freehold, and which, like freehold, necessarily carries with it the power of sale, sub-lease, mortgage, or disposition by will. Since all lands held under the Crown by "lease in perpetuity" are subject to the land-tax, the necessity for the periodical revaluations under the perpetual-lease system is done away with, the State reaping the advantage of the unearned increment through the before-mentioned tax. At the same time the improvements made in the soil by cultivation, &c., are secured to the tenant.

The advantages of this system to the selector are manifest. When it is taken into consideration that, with few exceptions, the Crown lands are, in their prairie condition, incapable of producing anything until brought into cultivation, the advantage to the settler of setting free his capital to develop the capabilities of the soil, rather than having to expend it in the purchase of a freehold, is very apparent. One of the most striking benefits of this system is the advantage it gives to the poor man, who, with little more capital than his strong right arm, is enabled to make a home for himself; which, under the freehold system, he is frequently unable to accomplish.

The values placed on the Crown lands are, as a rule, low, for the State does not so much seek to raise a revenue directly therefrom as to encourage the occupation of the lands by the people ; this secures indirectly an increased revenue, besides other advantages resulting from a numerous rural population.

Again, underlying the whole of the New Zealand land system is a further application of the principle of "the land for the people' '—viz., the restriction in area which any man may hold. This subject has been forced upon the attention of the Legislature by defects in former systems, under which one individual with means at his command could appropriate large areas, to the exclusion of his poorer fellow-settler. Under existing conditions, where the price at which land is offered is fixed for ever, and where choice of selection is by ballot, the poor settler has the same chance as the rich one, and may, should he wish it, hold under the Crown as much land. The quantity that a selector may hold is so fixed as to encourage the class of small farmers, and up to the statutory limit the amount he may select is left entirely to himself. The Act defines the amount of land any one may select at 640 acres of first-class, or 2,000 acres of second-class land, inclusive of any land he may already hold. These limits apply to lands which are thrown open for "free selection," as it is termed, but in some cases, where found desirable, the limit is by regulation made much smaller.

In addition to the many advantages offered by the "lease-in-perpetuity" system, the Land Act provides others, to meet the wants of different classes. The rule is almost invariable, that land thrown open for so-called "free selection" is offered to the public under three different tenures, the choice of which is left entirely to the would-be settler.

The three tenures are :—

(1.) For cash, in which one-fourth of the purchase-money is paid down at once, and the remainder within thirty days. The title does not issue until certain improvements have been made on the land.

(2.) Lease with a purchasing clause, at a 5-per-cent. rental on the value of the land ; the lease being for twenty-five years with the right to purchase at the original upset price at any time after the first ten years.

(3.) Lease in perpetuity, at a rental of 4 per cent. on the capital value, as already described above.

The present land-laws have been in force since the 1st November, 1892, and, therefore, the returns of the Department of Lands and Survey for the year ending the 31st March, 1900, in respect of lands the tenure of which is optional, will give a fair idea of that tenure most favoured by the public. The figures are :—

1. Cash : 95 selections, 16,510 acres.
2. Occupation with right of purchase : 395 selections, 117,771 acres.
3. Lease in perpetuity : 348 selections, 111,108 acres.

"The Land Act, 1892," provides for a special class of settlement called "small-farm associations," which found favour with the public to a very considerable extent during the first three years after the Act of 1892 came into force, but is now superseded to a large extent by the "improved-farm settlements" system. The "small-farm association" system provides that, where not less than twelve individuals have associated themselves together for mutual help, such an association can, with the approval of the Minister of Lands, select a block of land of not more than 11,000 acres, but there must be a selector to each 200 acres in the block. The extreme limit that one person may hold is fixed at 320 acres. Settlements of this class are held on "lease in perpetuity" for 999 years, in a similar way to lands under the same tenure when thrown open for free selection. The conditions of residence and improvement are the same. The system offers many advantages to the settler, so long as the blocks of land are judiciously chosen, having regard to quality of land, access, markets, and the probability of employment being obtained in the neighbourhood. In the eagerness to obtain lands on such easy terms, these points have, in the past, not received sufficient attention by some of the associations, and in consequence their success remains to be proved.

Under "The Land Act, 1885," there was a somewhat similar system, but it allowed of the acquisition of the freehold. This is now being taken advantage of to a considerable extent.

The following figures show the amount of settlement under both Acts on the 31st March, 1900. At that date there were 733 selectors, holding 130,463 acres under various tenures and in different parts of the country. Many of the settlements, where the conditions are favourable, are doing well. Others, in inaccessible parts, are barely holding their own.

The "village-settlement system" of New Zealand has become widely known in the Australian Colonies, and has excited much inquiry with a view to its adoption in other parts. It is believed, however, that this and the "small-farm association" settlements, referred to above, are often confounded in the minds of the public, for of recent years there has been no very great extension of village settlements in this colony. On the 31st March last there were 1,838 settlers holding land under the village-settlement system, which comprise 36,777 acres, and the total number of persons residing in these settlements was 5,323, the amount advanced by Government for houses, clearing, &c., being £25,932, of which £2,936 had been returned. The total value of improvements on the lands at the same date was £152,431. The above figures include the settlement on reserves and endowments.

The "improved-farm settlements" system during the last few years has largely taken the place of both the "village settlement" and the "small-farm association." In order to find work for the unemployed, considerable areas of forest-clad Crown lands have been set aside, and small contracts for the clearing, burning, and sowing these with grass have been let. The land is then subdivided into small farms and let on "lease in perpetuity" at a rental sufficient to cover the cost of clearing, &c., together with a fair rental of the land. Up to the 31st March, 1900, 46 settlements had been allocated, covering an area of 76,069 acres, situate in various parts of the colony. At that date 499 settlers had been allotted sections, who, together with their families, numbered 1,974 persons who were residing on the lands. They had felled and grassed 23,674 acres. The amount paid to the settlers up to the 31st March, 1900, was £64,786, and the total value of improvements on the land (including the Government advances) was £95,394.

The size of holdings averages about 100 acres.

With respect to other methods of dealing with the Crown estate, the "Digest of the Land-laws" appended hereto will give sufficient particulars.

THE LAND FOR SETTLEMENTS ACTS.

Allusion has already been made to the dearth of Crown lands suitable for small settlements in localities where they are most needed—*i.e.*, in settled districts, where the lands are frequently held in large estates, whose owners employ a good deal of labour. Not only is this the case in many parts of the colony, but there is also a want of land where the sons of settlers can obtain farms not far from the homes of their parents. To meet this want the Hon. J. McKenzie, the Minister of Lands, introduced into the Legislature in the session of 1892 a Bill intituled "The Land for Settlements Act," which authorised the purchase from private individuals of suitable properties for subdivision into small farms not exceeding 320 acres in extent. Under the provisions of this and the amending Acts properties have been acquired, and subsequently divided into small farms and leased in perpetuity at a 5-per-cent. rental, on a capital value fixed at a sufficient rate to cover first cost, together with survey, administration, and roads (if required). The process of acquisition is as follows: Whenever a property is offered to the Government, if it is so situated as to meet the object of the Act, a report on it is obtained by a qualified Government officer, and, should his report be favourable, the question of purchase is then referred to a Board of Land Purchase Commissioners, composed of the Inspector, who is the permanent Chairman, three other Government officers, and a member of the local Land Board, whose training and duties qualify them to advise the Government as to whether the purchase is a suitable one, and as to the price which should be given for the property. It is only on the advice of this Board that the Government acts. In nearly all cases the properties acquired have been improved farms, situated in settled districts, where the tenants have some chance of obtaining employment in the vicinity. The amount which might be expended per annum under the Act of 1892 was £50,000; but the Act of 1894 extended this amount to £250,000, and it also provided that the limit of land which might be selected should be the same as under "The Land Act, 1892." A further amendment of the Act in 1897 fixed the amount which might be spent yearly at £500,000. The Act also provides for the exchange of high-lying pastoral Crown lands for low-lying agricultural lands suitable for small holdings.

A new feature was introduced into the Act of 1894—namely, the power of taking lands compulsorily in cases where the Board could not agree with the owner as to price, &c., and where the Governor in Council decides that the possession of the land for purposes of subdivision is otherwise desirable. The amount payable to the owner is decided by a Compensation Court, composed of a Judge of the Supreme Court and two Assessors; one appointed by Government, the other by the owner of the property. Only one property has hitherto been acquired compulsorily, and that has since been disposed of on satisfactory terms.

The acquisition of lands under the Land for Settlements Acts should prove beneficial in providing homes for a large class of persons, who, from inexperience in the breaking in of new country or other reasons, are in a measure prohibited from occupying the waste lands of the Crown; and, moreover, as the properties acquired are all more or less improved, they seem to afford to the small-farmer class of the Old Country an opening for building up homes for themselves where their previous experience will be of use, instead of having to learn—often by sad experience—the methods adapted to a new and wild country.

"The Land for Settlements Act Amendment Act, 1896," contains special provisions as to the disposal of lands acquired under "The Land for Settlements Act, 1894," giving the preference to landless people, and requiring applicants for rural land to satisfy the Land Board as to their means to stock and cultivate the same and erect suitable buildings thereon. It gives the Board, in fact, a discretion as to who shall be entitled to apply for the lands. It also provides, in cases where buildings are on the land to be disposed of, that their value, apart from the capital value of the land, shall, with interest thereon at the rate of 5 per cent. per annum, be paid by the tenant in half-yearly instalments extending over a term of years.

Under "The Land for Settlements Act Amendment Act, 1899,' land may be compulsorily taken within a borough having a population of at least 15,000 persons, or within a radius of fifteen miles from the border thereof, for the purposes of providing workmen's homes or villages; but the area is restricted to not more than 100 acres every year within any such borough, or within the radius named above from the boundary of the borough.

The owner is left with right to retain an area of not more than 10 acres if in a borough, or 50 acres in any other case.

Special regulations have been made as to advances by Government to successful applicants for allotments, in aid of the cost of fencing and planting the same and building dwelling-houses thereon;

and also special provisions as to allotments for workmen's homes, the area of which should not in any case exceed 3 acres.

Regulations giving full directions to applicants under this Act have been issued from time to time, which should be in the hands of every one before applying for lands under this Act.

An account of the operations under the Land for Settlements Acts will be found in Part II. of this work.

PURCHASE OF NATIVE LANDS BY GOVERNMENT.

From about the year 1823 (which is the date of the first recorded deed) until the 6th February, 1840, the date of the Treaty of Waitangi, lands in New Zealand were acquired by direct purchase from the Maoris by individual members of the white races. During the years 1837 to 1839, or about the time it became probable that the sovereignty of the islands would be assumed by the Queen, the greater number of these purchases were made, and they extended to most parts of the country. These purchases are technically known as "the Old Land Claims," and their total number (including pre-emptive claims), as estimated by Commissioner F. Dillon Bell in 1862, was 1,376, covering an area of about 10,322,453 acres, out of which large area grants were recommended for 292,475 acres. These figures have been slightly added to since, but not to any very large extent. The large area shown above was reduced on survey to about 474,000 acres, situated principally to the north of Auckland. The difference in area between the amount granted and the total area surveyed became what are termed "surplus lands of the Crown." It was held that the Native title had been fully extinguished over the whole area surveyed; but, as by statute the claimants could only be granted 2,560 acres each, the balance became vested in the Crown on the assumption of the sovereignty, the Native title having been fully extinguished.

In many cases the titles did not issue to those to whom the land was awarded, as they were compensated by scrip issued by the Government, with the understanding that such scrip was to be exercised in the purchase of Crown lands in the neighbourhood of Auckland, to which place it was desirable—so soon as the capital was founded—to draw a population. The lands thus paid for in scrip became Crown lands, and these, together with the surplus lands, have from time to time been disposed of by the Crown and settled on. The amount of scrip, &c., issued up to 1862 was over £109,000.

On the signing of the Treaty of Waitangi on the 6th February, 1840, the pre-emptive right of purchase from the Maoris was ceded to the Queen, and consequently private purchase ceased. This remained the law until the passing of "The Native Land Act, 1862," when the Crown relinquished its right of pre-emption, whilst at the same time the purchase of Native lands for the Crown did not abate, but continued side by side with the private purchases up to the passing of "The Native Land Court Act, 1894."

From time to time since 1840 various sums were appropriated by Government or by Parliament for the acquisition of a Crown estate. Up to the date of passing of "The Native Land Act, 1862," these operations were conducted by officers of the Government specially appointed, who, from a knowledge of the Maoris, their customs and disposition, were successful in securing large areas of land for settlement. It must be conceded that their operations as a whole were successful, and that the number of disputed cases arising out of their labours was exceedingly small. The Waitara purchase is, however, here excluded, for there were reasons of general policy affecting that sale which did not prevail in other cases. This purchase was the ostensible cause of the war of 1860 and following years, but the motives which led to it were far deeper than the mere purchase of a few acres—there was a great principle at stake.

The difference effected in the mode of purchase by "The Native Land Act, 1862," was this: Previously, the title of the Maoris who were to receive payment for the land was decided by the Land Purchase officers; but the Act quoted set up a Court, presided over by able Judges, who determined the titles, which were afterwards registered in a special Court. Purchases have since been effected with the registered owners.

It is difficult to obtain figures showing the actual area acquired by the Crown from the Maoris up to 1870, but in round numbers it was 6,000,000 acres in the North Island; whilst the whole of the Middle Island, with the exception of reserves for the original Native owners, was acquired prior to the passing of "The Native Land Act, 1862." Stewart Island was purchased from the Native owners by deed dated 29th June, 1864.

The Native rebellion of 1860–69 brought Native-land purchases, for the time being, practically to a standstill.

The Immigration and Public Works Acts of 1870 and 1873 appropriated £200,000 and £500,000, respectively, for the purchase of lands in the North Island; and these amounts have, up to the 31st of March, 1900, been augmented by further annual appropriations from the public funds and other loan-moneys, covering altogether a total expenditure since 1870 of £1,936,282, with the following results: Area finally acquired in the North Island from Natives, from 1870 to 31st March, 1900, 7,582,705 acres. Area under negotiation in the North Island on 31st March, 1900, 791,759 acres; interests therein finally acquired, 279,391 acres.

DIGEST OF THE LAND-LAWS.

Administration.

The Crown lands are administered, under the authority of "The Land Act, 1892," by the Hon. the Minister of Lands at Wellington. For convenience the colony is divided into ten land districts, each being under the local direction of a Commissioner and a Land Board. The Commissioner's office is known as the principal land office, and in some of the larger districts there are one or more sub-offices. It is with these land offices the selector has to transact all business, from the first consultation of the maps to the final receipt of the Crown title.

Land Districts and Principal Land Offices.

The names of the land districts and of the towns where each principal office is situated are, beginning with the most northerly and taking them geographically, as under:—

Land District.	Town where Principal Land Office is situated.	Land District.	Town where Principal Land Office is situated.
Auckland	Auckland.	Marlborough	Blenheim.
Taranaki	New Plymouth.	Westland	Hokitika.
Hawke's Bay	Napier.	Canterbury	Christchurch.
Wellington	Wellington.	Otago	Dunedin.
Nelson	Nelson.	Southland	Invercargill.

Classification of Lands, &c.

Crown lands are divided into three classes:—

(1.) Town and village lands, the upset prices of which are, respectively, not less than £20 and £3 per acre; such lands are sold by auction:

(2.) Suburban lands, the upset price of which may not be less than £2 an acre; these lands are also sold at auction:

(3.) Rural lands, which may be disposed of at not less than £1 per acre for first-class, and 5s. an acre for second-class lands; such lands may be sold or leased by auction, or sold or leased on application.

No rural section may be larger than 640 acres in extent if first-class land, or 2,000 acres if second-class land, whether offered by auction or application. No person can select more than 640 acres of first-class or 2,000 acres of second-class land, including therein any land which he then holds. Pastoral runs are limited to areas which will carry 20,000 sheep or 4,000 cattle. No person can select more than one run.

Mode of acquiring Crown Lands.

Crown lands may be acquired as follows:—

(1.) By auction, after survey, in which case one-fifth of the price is paid down at the time of sale, the balance within thirty days:

(2.) By application, after the lands have been notified as open for selection, in which case the applicant fills up a form (to be obtained at any of the Land Offices) and makes the declaration and deposit required by the particular system he wishes to select under.

All applications, whether for surveyed or unsurveyed lands, are deemed to be simultaneous if made on the same day, and, if there be more than one applicant for the same land, the right of selection is determined by ballot.

Lands thrown open for application may be either surveyed or unsurveyed, and those not selected the first day remain open.

The Optional System of Selection.

Lands for selection are notified as open for application on and after a stated day, and, *at the option of the applicant*, may be obtained on any of the three following tenures: (*a*) Cash; (*b*) Occupation with the right of purchase; (*c*) Lease in perpetuity.

(*a*.) *Cash.*

If the land is surveyed, one-fifth of the price is to be paid down at the time of application, and the balance within thirty days; or, if the land is not completely surveyed, the survey-fee is paid on application, and goes towards the purchase of the land; the balance must be paid within thirty days of notice that the survey is completed.

A certificate of occupation will issue to the purchaser on final payment, which will be exchanged for a Crown title so soon as the Board is satisfied that the improvements mentioned on the next page have been completed.

(*b*.) *Occupation with Right of Purchase.*

Lands selected on this tenure are held under a license for twenty-five years. At any time subsequent to the first ten years, and after having resided and made the improvements hereinafter described, the licensee can, on payment of the upset price of the land, acquire the freehold. If the land be not purchased, the license may be exchanged for a lease in perpetuity.

The rent is 5 per cent. on the cash price of the land; a half-year's rent has to be paid in with the application, if surveyed land, which represents the half-year's rent due in advance on the 1st day of January or July following the selection. If the land is unsurveyed, the cost of survey is to be deposited, and is credited to the selector as so much rent paid in advance, counted from the 1st day of January or July following thirty days' notice of the completion of survey.

Residence and improvement of the land are compulsory, as hereinafter described.

(*c*.) *Leases in Perpetuity.*

Lands selected on this tenure are leased for 999 years, subject to the conditions of residence and improvements described below. The rental is 4 per cent. on the cash price of the land, and applications are dealt with in the same way as under the previous tenure (*b*), but there is at no time a right of purchase.

Two or more persons may make a joint application to hold as tenants in common under either of the two last-named tenures.

Residence and Improvements.

Under the two last-mentioned tenures, the conditions as to residence and improvements are:—

RESIDENCE—

(1.) Must commence on bush or swamp lands within four years, and in open or partly open land within one year, from the date of selection:

(2.) Must be continuous for six years on bush or swamp land, and for seven years on open or partly open land, on lands occupied with a right of purchase:

(3.) Must be continuous for a term of ten years on lease-in-perpetuity lands.

The Board has power to dispense with residence in certain cases, such as where the selector is residing on adjacent lands, or is a youth or unmarried woman living with parents, and in a few other cases.

RESIDENCE implies the erection of a habitable house to be approved of by the Board.

IMPROVEMENTS which must be made are as follows:—

(1.) Cash-tenure lands must be improved within seven years to an amount of £1 an acre for first-class land, and 10s. an acre for second-class land.

(2.) Lands held on lease with right of purchase, or on lease in perpetuity, must be improved to an amount equal to 10 per cent. of the value of the land within one year from the date of the license or lease; within two years must be improved to the amount of another 10 per cent.; within six years must be improved to the value of another 10 per cent., making 30 per cent. in all within the six years. In addition to the above, the land must be further improved to an amount of £1 an acre for first-class land, and on second-class land to an amount equal to the net price of the land, but not more than 10s. an acre.

Improvements may consist of reclamation from swamps, clearing of bush, planting with trees or hedges, cultivation of gardens, fencing, draining, making roads, wells, water-tanks, water-races, sheep-dips, embankments or protective-works, or in any way improving the character or fertility of the soil; or the erection of any building, &c.; and *cultivation* includes the clearing of land for cropping, or clearing and ploughing for laying down with artificial grasses, &c.

Special-settlement Associations.

Under the existing regulations any number of persons, not less than twelve, may apply for a block of land of not less than 1,000 acres or more than 11,000 acres in extent, but the number of members must be such that there shall be one for every two hundred acres in the block, and no one can hold more than 320 acres, except in swamp lands, where the area may be 500 acres.

The capital value of lands within a special settlement is fixed after survey by special valuation, but may not be less than 10s. an acre; the rental is not less than 4 per cent. on the capital value, and the tenure is a lease in perpetuity.

Residence, occupation, and improvements are generally the same as already described, and applications have to be made in manner prescribed by regulations.

Applicants should apply to a Commissioner for a copy of the regulations, as they are liable to change at any time.

Improved-farm Settlements.

Special regulations are in force for this class of settlement, which should be applied for, but briefly the terms are as follow: Those who form settlements under these provisions are selected from the applicants by the Commissioner of Crown Lands, preference being given to married men. The areas of the farms may vary from 10 acres to 200 acres, according to locality; no settler can select more than one farm. The land is leased for 999 years at a rental of 4 per cent. on the improved capital value. The rates allowed for felling are those current in the district, but must not exceed £1 15s. per acre. Advances to cover cost of sowing with grass will be made, if required, likewise not more than £10 towards building a house or erecting fencing. Not more than 100 acres of felling will, however, be paid for. As a rule, the settlers can get employment on the road-works in the neighbourhood, but Government does not guarantee this.

Residence for the first ten years is compulsory, and improvements must be made in terms of Part III. of "The Land Act, 1892." (See *ante*.)

Village Settlements.

Village settlements are disposed of under regulations made from time to time by the Governor, but the main features are as follow:—

Such settlements may be divided into:—

(1.) Village allotments not exceeding one acre each, which are disposed of either by auction among the applicants or by application, as already described, with option of tenure, the cash price being not less than £3 per allotment:

(2.) Homestead allotments not exceeding 100 acres each, which are leased in perpetuity at a 4-per cent. rental on a capital value of not less than 10s. per acre.

Residence, improvements, and applications are the same as already described. The leases are exempt from liability to be seized or sold for debt or bankruptcy.

The Colonial Treasurer is empowered in certain cases to advance small sums for the purpose of enabling selectors to profitably occupy their allotments.

Small Grazing-runs.

Small grazing-runs are divided into two classes: First-class, not exceeding 5,000 acres; second-class, not exceeding 20,000 acres in area. The rental in both cases is not less than 2½ per cent. on the capital value per acre, but such capital value cannot be less than 5s. per acre. Small grazing-runs are leased for terms of twenty-one years, with right of renewal for other twenty-one years, at a rent of 2½ per cent. on the then value of the land. The runs are declared open for selection, and applications and declarations on the forms provided have to be filled in and left at the Land Office, together with the deposit of one half-year's rent, which represents that due on the 1st day of March or September following the selection.

No holder of a pastoral run, and no holder of freehold or leasehold land of any kind whatever, over 1,000 acres in area, exclusive of the small grazing-run applied for, may be a selector under this system; and only one small grazing-run can be held by any one person.

The lease entitles the holder to the grazing rights, and to the cultivation of any part of the run, and to the reservation of 150 acres round his homestead through which no road may be taken; but the runs are subject to the mining laws.

Residence is compulsory, if bush or swamp land, within three years; if open, within one year; and must be continuous to the end of the term, but may in a few cases be relaxed. Improvements necessary are as follow: Within the first year, to the amount of one year's rent; within the second year, to another year's rent; and, within six years, to the value of two other years' rent: making in all a sum equal to four years' rental, which must be expended within six years. In addition to these improvements, bush-covered first-class runs must be improved to an amount of 10s. an acre, and second-class bush-clad runs to an amount of 5s. an acre.

These runs may be divided, after three years' compliance with the conditions, amongst the members of the selector's family.

Pastoral Runs.

Pastoral country is let by auction for varying terms not exceeding twenty-one years; and, excepting in extraordinary circumstances, runs must not be of a greater extent than will carry 20,000 sheep or 4,000 head of cattle. Runs are classified from time to time by special Commissioners into: (1) Pastoral lands, which are suitable only for depasturing more than 5,000 sheep; (2) pastoral-agricultural lands, suitable for subdivision into areas of under 5,000 acres, which may be either let as pastoral runs, generally for short terms, or cut up for settlement in some other form. Leases of pastoral lands may not be resumed; leases of pastoral-agricultural lands may be resumed at any time after twelve months' notice, without compensation.

No one can hold more than one run; but, in case of any one holding a run of a carrying-capacity less than 10,000 sheep, he may take up additional country up to that limit.

Runs are offered at auction from time to time, and half a year's rent has to be paid down at the time of sale, being the amount due in advance on the 1st day of March or September following the sale, and the purchaser has to make the declaration required by the Act. All leases begin on the 1st day of March, and they entitle the holder to the grazing rights, but not to the soil, timber, or minerals; and the lease terminates over any part of the run which may be leased for some other purpose, purchased, or reserved. The tenant has to prevent the burning of timber or bush; in open country to prevent the growth of gorse, broom, or sweetbriar; and to destroy the rabbits on his run. With the consent of the Land Board, the interest in a run may be transferred or mortgaged, but power of sale under a mortgage must be exercised within two years.

In case it is determined again to lease any run on expiry of the lease, the new lease must be offered by auction twelve months before the end of the term, and if, on leasing, it shall be purchased by some one other than the previous lessee, valuation for improvements, to be made by an appraiser, shall be paid by the incoming tenant, but to a value not greater than three times the annual rent—excepting in the case of a rabbit-proof fence, which is to be valued separately. If the run is not again leased, the value of rabbit-proof fencing is paid by the Crown, but the tenant has no claim against the Crown beyond the value of the rabbit-proof fence; he may, however, within three months of sale, remove fences, buildings, &c. Runs may also be divided with the approval of the Board.

Survey Charges on Unsurveyed Lands.

The following is the scale of charges for surveys of unsurveyed lands:—

Not exceeding 30 acres, £6.
Exceeding 30 and up to 50 acres, 3s. 6d. per acre, but not less than £6.
Exceeding 50 and up to 100 acres, 3s. per acre, but not less than £8 15s.
Exceeding 100 and up to 200 acres, 2s. 6d. per acre, but not less than £15.
Exceeding 200 and up to 300 acres, 2s. per acre, but not less than £25.
Exceeding 300 and up to 500 acres, 1s. 8d. per acre, but not less than £30.
Exceeding 500 and up to 1,000 acres, 1s. 4d. per acre, but not less than £41 10s.
Exceeding 1,000 and up to 2,000 acres, 1s. per acre, but not less than £66 10s.

For the survey of any area of rural land, being open land, the scale of charges shall be two-thirds the foregoing rates.

The Chief Surveyor may vary the above charges by substituting a rate per mile or per day for such work as may not come under the foregoing scale.

ADVANCES TO SETTLERS.

THE Government Advances to Settlers Act was a Government policy measure in the legislation of 1894. It was designed to afford relief to a numerous class of colonists who were struggling under the burden of high rates of interest and heavy legal expenses of mortgages. These were established when prices of agricultural produce were high and profits large; and, so long as business continued to be prosperous, they attracted but little, if any, attention. For several years preceding 1894 commerce and agriculture had suffered from world-wide depression; settlers were becoming embarrassed in their circumstances; and the high rates of interest still charged were felt to be a burden on the industry of the people not easily borne, and a hindrance to the settlement and development of the farming lands of the colony. Under these circumstances the Government brought in the Government Advances to Settlers Act. It was passed towards the close of the session of 1894, and immediately came into operation, with results which have proved beneficial to the farming community. A general decline in the rates of interest at once set in, and it is not too much to claim that the Act has been instrumental in lowering these to a considerable extent on several millions of money invested on mortgage of the farming lands of the colony. This result, while it may have diminished the incomes of a few persons resident within the colony, has benefited thousands of deserving settlers and led to large areas of land being brought under cultivation that, but for the Advances to Settlers Act, would still be in their natural state.

The Act authorised the raising of three million pounds sterling within two years, in sums of a million and a-half per annum, at a rate of interest not higher than 4 per cent. In May, 1895, tenders were invited in London for £1,500,000 of 3-per-cent. inscribed stock of the Government of New Zealand, and applications were received for £5,960,400 at prices ranging from £100 to £90. The million and a-half was placed at an average price of £94 8s. 9d.

An amending Act, passed in 1895, extended the time for raising the residue of the three millions to three years from the coming into operation of the amending Act. In 1898 this term was extended for a further period of three years. £580,000 of the second half of the loan has been raised on satisfactory terms.

To carry out the objects of the Act, an office was established called the "Government Advances to Settlers Office"; at the same time a General Board was constituted to co-operate with and assist the Superintendent, the title by which the chief administrative officer is known.

The business of the office is the advancing of money in New Zealand on first mortgage of lands and improvements held under the following classes of tenure, free from all encumbrances, liens, and interests other than leasehold interests, that is to say:—

(1.) Freehold land held in fee-simple under "The Land Transfer Act, 1885," or freehold land held in fee-simple the title to which is registered under "The Deeds Registration Act, 1868."

(2.) Crown land held on perpetual lease under "The Land Act, 1885."

(3.) Crown land held under Parts III. and IV. of "The Land Act, 1892."

(4.) Crown land held on lease as a small grazing-run under "The Land Act, 1885," or under "The Land Act, 1892."

(5.) Crown land held on agricultural lease under "The Mining Act, 1891."

(6.) Crown land held on lease (not being for mining purposes) under "The Westland and Nelson Coalfields Administration Act, 1877."

(7.) Native land held on lease under "The West Coast Settlement Reserves Act, 1881," or under the Act of 1892.

(8.) Land held on lease under "The Westland and Nelson Native Reserves Act, 1887."

(9.) Land held under "The Thermal-Springs Districts Act, 1881."

(10.) Educational and other reserves which are subject to the provisions of "The Land Act 1877 Amendment Act, 1882," by virtue of Proclamation made under section 50 thereof, or "The Land Act, 1885," by virtue of Proclamation made under section 237 thereof, or "The Land Act, 1892," by virtue of Proclamation made under section 243 thereof, and are held on perpetual lease or lease in perpetuity, or on deferred-payment or small grazing-run systems.

(11.) Crown land held by license on the deferred-payment system under Part III. of "The Land Act, 1885."

(12.) Land held under lease from a leasing authority, as defined by "The Public Bodies' Powers Act, 1887," and providing for the payment by the incoming tenant of valuation for improvements made upon the land, whether by the lessee named in such lease or any former lessee, as tenant.

With regard to classes 10 and 12, a lease is not eligible if it provides for absolute forfeiture (without compensation) for breach of conditions, or if on the determination of the lease compensation is to be allowed for certain improvements only.

Mortgages are granted either on the instalment or the fixed-loan system (fully described hereafter); and the margins of security required by the Act are as follow:—

(1.) On freeholds (other than urban or suburban) three-fifths of the value may be advanced either on the instalment or fixed-loan system: Provided that in the case of first-class agricultural freeholds instalment loans may be advanced up to two-thirds of the value.

(2.) On leaseholds (other than urban or suburban) one-half of the value of the lessee's interest in the lease may be advanced on the instalment system. No loans are granted on leaseholds on the fixed-loan system.

(3.) On urban and suburban freeholds, loans are granted on the instalment system only, and the amounts of loan are limited as follow:—

(*a*.) On urban freehold on which buildings exist, three-fifths of the value of the land, *plus* one-half the value of the buildings, may be advanced;

(*b*.) On suburban freehold on which buildings exist, one-half the value of the land, *plus* one-half the value of the buildings, may be advanced:

(*c*.) On urban or suburban freehold on which no buildings exist, one-half the value of the land may be advanced, but on such security no loan shall be granted except for the erection of buildings on the land: the loan to be advanced by instalments at the discretion of the Board, as the erection of the buildings proceeds.

"Urban land" means land which is situate in a borough having a population of at least two thousand inhabitants and is not used for farming, dairying, or market-gardening purposes.

"Suburban land" means land which is situate in a borough having a population of less than two thousand inhabitants, or in any town, or in the vicinity of any town or borough, and is not used for farming, dairying, or market-gardening purposes.

Lands situated within towns which are used for farming, dairying, or market-gardening are treated in accordance with paragraph (3), subsections (*a*) and (*b*), hereof.

The right of determining what land may be considered "urban" or "suburban," or "first-class agricultural," is imposed by the Act on the General Lending Board.

The security which the applicant offers for the loan must consist of one or more holdings of the several classes of tenure above mentioned, and must, of course, be of the necessary value; and, if the security is leasehold, all the covenants and conditions of the lease, including the payment of rent, must have been regularly complied with.

Any person desiring an advance is required to make a written application on the prescribed form, a copy of which can be obtained from any Postmaster in the colony. The Postmaster also supplies an envelope in which the application may be forwarded free of postage, and affords to the applicant any explanation which may be required respecting the filling-in of the application.

In the case of an application for an advance on the security of an interest in land held under a lease or license issued from the Lands Department (and belonging to one or more of the classes of tenure numbered 2, 3, 4, 5, 6, 9, 10, 11), a notice of the application must be forwarded to the Commissioner of Crown Lands for the district in which the land is situated, on a form which, with an envelope for forwarding it free of postage, may be obtained from any Postmaster in the colony.

No loan of less than £25 or more than £3,000 can be granted, and in the case of "urban" or "suburban" lands the maximum loan is fixed at £2,000.

All applications must be accompanied by a valuation-fee according to the following scale:—

	£	s.	d.
On an application for a loan not exceeding £100	0	10	6
Exceeding £100 but not exceeding £250 ...	1	1	0
Exceeding £250 but not exceeding £500 ...	1	11	6
Exceeding £500 but not exceeding £3,000 ...	2	2	0

If the applicant has already obtained any advance under the Act and is desirous of obtaining a further advance, either on the same security or on a separate security, the amount of the application, added to the amount of the advances already obtained, must not exceed the limit mentioned above—£3,000 for farming and £2,000 for urban or suburban lands.

Mortgages granted on the fixed-loan system may be for any period not exceeding ten years, and the principal is repayable at the end of the term. They may also be repaid in whole or in part on any half-yearly due date during the term, as explained hereafter. Interest at the rate of 5 per cent. is payable half-yearly, reducible to 4½ per cent. provided payment is made not later than fourteen days after due date and there are no arrears.

Mortgages granted on the instalment system are repayable by seventy-three half-yearly payments of principal and interest combined. They may also be repaid in whole or in part at any time. Interest is charged at the rate of 5 per cent., reducible to 4½ per cent. provided payment is made not later than fourteen days after due date and there are no arrears.

Every half-yearly instalment, except the last, is at the rate of £3 (less the rebate of interest in case of prompt payment) for every £100 of the loan. The following table shows, taking a loan of £100 as an instance, how much of each instalment is applied to repaying the principal, and how much is in payment of interest. It shows also the balance of principal remaining due after payment of the respective instalments until the loan is entirely repaid in thirty-six years and a half:—

Table of Prescribed Half-yearly Instalments for every One Hundred Pounds of the Loan.

Half-year.	Prescribed Half-yearly Instalment.			Apportioned thus:						Balance of Principal owing.		
				On Account of Interest at 5 per Cent.			On Account of Principal.					
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1st	3	0	0	2	10	0	0	10	0	99	10	0
2nd	3	0	0	2	9	9	0	10	3	98	19	9
3rd	3	0	0	2	9	6	0	10	6	98	9	3
4th	3	0	0	2	9	3	0	10	9	97	18	6
5th	3	0	0	2	9	0	0	11	0	97	7	6
6th	3	0	0	2	8	8	0	11	4	96	16	2
7th	3	0	0	2	8	5	0	11	7	96	4	7
8th	3	0	0	2	8	1	0	11	11	95	12	8
9th	3	0	0	2	7	10	0	12	2	95	0	6
10th	3	0	0	2	7	6	0	12	6	94	8	0
11th	3	0	0	2	7	2	0	12	10	93	15	2
12th	3	0	0	2	6	11	0	13	1	93	2	1
13th	3	0	0	2	6	7	0	13	5	92	8	8
14th	3	0	0	2	6	3	0	13	9	91	14	11
15th	3	0	0	2	5	10	0	14	2	91	0	9
16th	3	0	0	2	5	6	0	14	6	90	6	3
17th	3	0	0	2	5	2	0	14	10	89	11	5
18th	3	0	0	2	4	9	0	15	3	88	16	2
19th	3	0	0	2	4	5	0	15	7	88	0	7
20th	3	0	0	2	4	0	0	16	0	87	4	7
21st	3	0	0	2	3	7	0	16	5	86	8	2
22nd	3	0	0	2	3	2	0	16	10	85	11	4
23rd	3	0	0	2	2	9	0	17	3	84	14	1
24th	3	0	0	2	2	4	0	17	8	83	16	5
25th	3	0	0	2	1	11	0	18	1	82	18	4
26th	3	0	0	2	1	6	0	18	6	81	19	10
27th	3	0	0	2	1	0	0	19	0	81	0	10
28th	3	0	0	2	0	6	0	19	6	80	1	4
29th	3	0	0	2	0	0	1	0	0	79	1	4
30th	3	0	0	1	19	6	1	0	6	78	0	10
31st	3	0	0	1	19	0	1	1	0	76	19	10
32nd	3	0	0	1	18	6	1	1	6	75	18	4
33rd	3	0	0	1	18	0	1	2	0	74	16	4
34th	3	0	0	1	17	5	1	2	7	73	13	9
35th	3	0	0	1	16	10	1	3	2	72	10	7
36th	3	0	0	1	16	3	1	3	9	71	6	10
37th	3	0	0	1	15	8	1	4	4	70	2	6
38th	3	0	0	1	15	1	1	4	11	68	17	7
39th	3	0	0	1	14	5	1	5	7	67	12	0
40th	3	0	0	1	13	10	1	6	2	66	5	10
41st	3	0	0	1	13	2	1	6	10	64	19	0
42nd	3	0	0	1	12	6	1	7	6	63	11	6
43rd	3	0	0	1	11	9	1	8	3	62	3	3
44th	3	0	0	1	11	1	1	8	11	60	14	4
45th	3	0	0	1	10	4	1	9	8	59	4	8
46th	3	0	0	1	9	7	1	10	5	57	14	3
47th	3	0	0	1	8	10	1	11	2	56	3	1
48th	3	0	0	1	8	1	1	11	11	54	11	2
49th	3	0	0	1	7	3	1	12	9	52	18	5
50th	3	0	0	1	6	6	1	13	6	51	4	11

TABLE OF PRESCRIBED HALF-YEARLY INSTALMENTS FOR EVERY ONE HUNDRED POUNDS OF THE LOAN—*continued.*

Half-year.	Prescribed Half-yearly Instalment.	Apportioned thus:		Balance of Principal owing.
		On Account of Interest at 5 per Cent.	On Account of Principal.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
51st	3 0 0	1 5 8	1 14 4	49 10 7
52nd	3 0 0	1 4 9	1 15 3	47 15 4
53rd	3 0 0	1 3 11	1 16 1	45 19 3
54th	3 0 0	1 3 0	1 17 0	44 2 3
55th	3 0 0	1 2 1	1 17 11	42 4 4
56th	3 0 0	1 1 1	1 18 11	40 5 5
57th	3 0 0	1 0 2	1 19 10	38 5 7
58th	3 0 0	0 19 2	2 0 10	36 4 9
59th	3 0 0	0 18 1	2 1 11	34 2 10
60th	3 0 0	0 17 1	2 2 11	31 19 11
61st	3 0 0	0 16 0	2 4 0	29 15 11
62nd	3 0 0	0 14 11	2 5 1	27 10 10
63rd	3 0 0	0 13 9	2 6 3	25 4 7
64th	3 0 0	0 12 7	2 7 5	22 17 2
65th	3 0 0	0 11 5	2 8 7	20 8 7
66th	3 0 0	0 10 3	2 9 9	17 18 10
67th	3 0 0	0 9 0	2 11 0	15 7 10
68th	3 0 0	0 7 8	2 12 4	12 15 6
69th	3 0 0	0 6 5	2 13 7	10 1 11
70th	3 0 0	0 5 1	2 14 11	7 7 0
71st	3 0 0	0 3 8	2 16 4	4 10 8
72nd	3 0 0	0 2 4	2 17 8	1 13 0
73rd	1 13 10	0 0 10	1 13 0	..

With reference to the above table, it has to be borne in mind that the amount of each instalment (£3) is reduced by one-tenth of the amount set down for interest if payment is made within the prescribed time. Thus, a mortgagor paying promptly his first instalment on a loan of £100 would be charged not £3, but £2 15s., the interest being reduced by one-tenth.

The mortgagor under the instalment system may pay to the Superintendent at any time, and under the fixed-loan system on any half-yearly due date, the whole balance of principal owing, with interest to date of payment, and obtain a discharge of the mortgage on payment of the fee prescribed for such discharge.

The mortgagor may also from time to time pay to the Superintendent, in addition to the half-yearly payments, sums of £5 or a multiple of £5, and in the case of fixed loans such deposits are applied in reduction of the advance, and interest is charged on the balance only; or, if the mortgagor so directs, such deposits are held on his behalf and applied in payment of the half-yearly instalments of interest as they fall due.

In the case of an instalment loan, money paid in advance by a mortgagor is applied in one of the following methods, according as he directs:—

(*a.*) It may be held on his behalf and applied in payment of the half-yearly instalments (consisting partly of interest and partly of principal) as they fall due, until the dsposit is exhausted.

(*b.*) It may be applied at once in payment of as many future half-yearly instalments of principal (but not of interest) as it will cover, and, as far as such instalments are concerned, the corresponding interest will not be charged. On the next half-yearly date, however, the mortgagor will be required to continue his payments as before, the advance payment having the effect of reducing the period (thirty-six years and a half) during which he would have to pay such instalments. For instance, a mortgagor has a loan of £100: On the due date of his eighth half-yearly instalment he pays, in addition to the amount due, a sum of £5. This is applied in payment of his ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth instalments of principal—12s. 2d., 12s. 6d., 12s. 10d., 13s. 1d., 13s. 5d., 13s. 9d., 14s. 2d. (see table), making a total of £4 11s. 11d.—and the corresponding interest, £2 7s. 10d., £2 7s. 6d., £2 7s. 2d., £2 6s. 11d., £2 6s. 7d., £2 6s. 3d., £2 5s. 10d., is not charged. A balance of 8s. 1d. remains in his favour. Then on the next due date he has to make the half-yearly payment as usual (less 8s. 1d.), but, instead of being the ninth, it counts as the sixteenth instalment, and by this means the whole loan is repaid three years and a half earlier (seven half-yearly payments) than it otherwise would.

(*c*). It may be applied as explained in the next paragraph.

On the due date of any instalment, after at least one-tenth of the loan has been repaid, by means of the half-yearly instalments or of moneys repaid in advance, or both, the mortgagor (provided he is not in arrear with any instalment or other payment due under the mortgage) may, with the consent of the Superintendent, readjust the loan by treating the balance of principal then unpaid as a fresh loan duly granted on that date for a fresh term. But no readjustment is allowed unless the balance of unpaid principal amounts to at least £100. Under this arrangement the mortgagor is relieved of paying interest calculated on the original amount of the loan. He only pays interest on the balance of principal not repaid.

Advance payments in reduction of the mortgage, unless made on the due date of a half-yearly payment, take effect only from the next due date.

The law-costs payable for preparing and completing the mortgages under the Act are as follow:—

Mortgages under "The Land Transfer Act, 1885."

Law-costs of preparing, or perusing, and of completing mortgage (to be deducted from the advance),—

	£	s.	d.
If advance be not exceeding £500	0	10	6
Exceeding £500, but not exceeding £1,000	1	1	0
Exceeding £1,000, but not exceeding £3,000	1	11	6

With cash disbursements, which are the same in every case, namely,—

Mortgage form	2s.	
Search-fee	2s.	With an additional 2s. for every certificate of title after the first.
Registration	10s.	

Fee for discharge of mortgage,—

Release fee	5s.

Mortgages under "The Deeds Registration Act, 1868."

Costs of preparing, or perusing, and of registering mortgage, including disbursements (to be deducted from the advance),—

	£	s.	d.
If advance be not exceeding £500	2	10	0
For every additional £500	0	15	0
Costs of discharge, including registration fees	1	1	0

Solicitors are entitled to charge moderately for any services mortgagors may require over and above those for which the above scale fixes the costs—such services, for example, as clearing encumbered titles, obtaining and registering titles, &c.

Valuation reports on the securities offered are made on behalf of the Department by expert land-valuers; and these reports, together with the corresponding valuations appearing in the district valuation-rolls, prepared in accordance with the provisions of "The Government Valuation of Land Act, 1896," and reports from the Commissioners of Crown Lands in the case of Crown leaseholds, are considered by the General Board. Board meetings are held weekly, or as occasion requires, and the Superintendent is bound by the resolutions of the Board. A resolution is taken with regard to every application placed before the General Board, so that on the Board rests the responsibility of granting loans or of refusing to grant them.

Some applicants offer securities which are obviously not eligible; and in that event the valuation-fees paid are returned, the securities are not reported on, and the applications do not go before the Board.

By arrangements made with the Post Office, mortgagors are enabled to pay their instalments and interest to the credit of the Superintendent at any money-order office throughout the colony, and free of all costs for remitting the money to Wellington. This is an arrangement at once convenient and economical for the large number of persons scattered all over the colony who have financial dealings with the Advances to Settlers Office. Loans may also be repaid in full through the Post Office.

The officials of the Government Advances to Settlers Office are bound by declaration to observe secrecy respecting applications for advances, and are forbidden to give any information respecting the business of the Department except to officers appointed to assist in carrying out the provisions of the Act.

The Act provides penalties for persons employed in the business of the Advances to Settlers Office taking any fee or reward from an applicant for a loan under the Act; for persons acting as valuers of land in which they have a pecuniary interest; and for persons who may attempt to bribe any one employed under the Act. It should be understood that no commission, charge, or procuration fee is payable in connection with an application for a loan.

The first meeting of the General Board for the purpose of considering applications for loans was held on 23rd February, 1895; and up to the 31st March, 1900, the Board had authorised 8,452 advances, amounting to £2,633,440. The total amount applied for in the 8,452 applications granted in full and partially was £3,012,870. 1,004 applicants declined the partial grants offered to them, amounting to £454,000; so that the net advances authorised at 31st March, 1900, numbered 7,448, and amounted to £2,179,440. The security for the net authorised advances was valued at £4,359,983. The number of applications received up to 31st March, 1900, was 10,995, for an aggregate amount of £3,711,033. 60 per cent. of the total amount applied for was wanted for the purpose of paying off existing mortgages at rates of interest higher than 5 per cent.

THE LAND-TAX AND INCOME-TAX.

THE LAND-TAX.

AT the time of the repeal of the Property Assessment Act in 1891 it was contended by many that the substitution of a land-tax which exempted from taxation all the improvements on the land, and of an income-tax which exempted all private incomes up to £300 a year, would lead to such a shrinkage of revenue as to render the experiment exceedingly risky. After several collections of land-tax upon the unimproved value only, and an income-tax with the above exemption, it can now, however, be fairly claimed that such a contention has not been realised, and that the revenue, notwithstanding the many adverse circumstances attending the introduction of a new system of taxation, has been fully maintained.

The yield of land-tax for 1899–1900 was, in round figures, £294,000, of which about £214,000 represents ordinary tax; the balance, £80,000, being graduated tax, and the special tax on absentee landowners. For the preceding year the total amount collected was £4,000 or so more, the difference being the tax formerly paid on certain estates acquired by Government under the Land for Settlements Act.

For the purposes of the "ordinary" land-tax, owners are allowed under the Act to deduct from the total unimproved value of their land the amount of any registered mortgage thereon, and the mortgagees are required to make a return of all their mortgages. In the case of uncompleted sales, where the title has not been transferred the amount of unpaid purchase-money is treated as a mortgage—that is, it may be deducted by the purchaser and must be included in the return made by the vendor.

An owner of land the unimproved value of which, together with mortgages owing to him, does not exceed £1,500 (after deducting mortgages owing by him) is allowed an exemption of £500, but where such value exceeds £1,500 the exemption diminishes by £1 for every £2 that such value increases, so that no exemption is allowable when £2,500 is reached.

The Act contains a provision that in cases where the income from any land or mortgages is less than £200 per annum, and the owner is incapacitated by age or infirmity from supplementing such income, a further exemption may be allowed by the Commissioner upon his being satisfied that the payment of the tax would entail hardship on such owner. This discretionary power has been exercised in a considerable number of instances, especially in the case of widows and orphans with small means, and much hardship prevented.

All mortgages are assessed at their full nominal value, except where it is satisfactorily shown that owing to depreciation of the security or other cause such value has been diminished. In the case of mixed mortgages—that is, mortgages which are secured on both real and personal property—the amount of the mortgage chargeable with land-tax is taken to be the assessed value of the land included in the security, the interest derived from the balance of mortgage being liable to income-tax.

It will be readily seen that the deductions and exemptions which have been referred to materially reduce the number of taxpayers as compared with the number of land-owners, the latter being upwards of 90,000, whilst the former only number about 13,000.

If the unimproved value of land in any assessment amounts to £5,000 or over, graduated tax is payable thereon according to the scale given on another page. Mortgages, however, are not chargeable with the graduated tax; but, on the other hand, no deduction is allowed in an assessment for graduated tax in respect of any mortgage owing on the land.

Twenty per cent. additional on the amount of the graduated tax is levied where the owners have been resident out of the colony for a period of three years or more prior to the date of the passing of the annual Tax Act.

Native lands which are occupied by Europeans are subject to the ordinary tax, it being considered that as such lands have benefited equally with the lands of Europeans by the expenditure of public money, they should bear some proportion of the taxation. But, recognising that in some instances, where the interests of the Native owners are small, the collection of the tax might possibly entail some hardship, the Legislature decided that only half the usual rate should be collected on such lands. Graduated tax is not chargeable on Native land.

THE INCOME-TAX.

Both the number of income-tax payers and the amount of tax received may appear at first sight smaller than might be expected from the population of New Zealand, but it should be remembered that incomes from land and mortgages are exempt, the unimproved value of the former and the capital value of the latter being chargeable with land-tax in the manner hereinbefore explained. The statutory exemption of £300, *plus* life-insurance premiums up to £50, renders a very large number of employés and small traders exempt from the tax. Companies pay the tax on profits, and dividends are not returnable by their shareholders. These circumstances will account for the smallness of the number subject to income-tax and, to a certain extent, the comparatively inconsiderable contribution to the revenue.

Objections to income assessments are heard in private before the Stipendiary Magistrate.

It would be impossible to indicate the number and variety of questions which arise daily in connection with income assessments, much less to give any intelligent account of how they are dealt with. The department has endeavoured to lay down certain definite rules for its guidance in the greater number of cases, and a memorandum embodying these has been circulated among all who have been called upon to make returns. It is, however, much too lengthy to introduce here.

Amongst the questions to which special attention has been given is that of the depreciation of plant and machinery, and the amount to be allowed as a deduction under this heading. The Amendment Act of 1894 admitted, amongst deductions, an allowance for depreciation of plant and machinery over and above what might be claimed as repairs and renewals. The allowance was, by law, fixed at "what might be considered just by the Commissioner," but the Chief Inspector of Machinery is, in this matter, the expert adviser of the department, and he fixes the rates to be allowed on the different classes of machinery. There were naturally some differences of opinion between owners of machinery and the department, but only in the case of steam-vessels has the Inspector found it necessary to alter the scale first laid down. The rule formulated for the Inspector's guidance was as follows:—

An allowance to be made of such an amount (over and above what is expended in renewals and repairs) as will equal the annual loss of profit-earning power.

This is not intended to provide for the loss of capital invested, but simply represents the annual loss through wear and tear (as affecting income-earning capacity), other than that which can be made good by repairs.

Obsolete machinery is also allowed for when the machinery has been actually discarded; and here the amount to be allowed must bear the same proportion to the whole loss as the time the tax has been in operation bears to the life of the machine. An engine discarded in the third year of the tax—the life of the engine being, say, twenty years—would be allowed for to three-twentieths of the loss incurred, less the annual amounts that had been allowed by the department for depreciation for those three years. Machinery superseded by something better, but kept in reserve in case of a breakdown, would not be allowed for.

It should be mentioned here that the statutory exemption of £300 is not allowed to absentees, whether firms or individuals, nor to companies.

Regulations have been issued for levying income-tax on the profits earned by shipowners whose head-quarters are beyond the colony. The plan adopted is to require a return of the outward freight and passenger lists, and to levy tax at the rate of one shilling in the pound upon 5 per cent. of the total returned.

YIELD OF TAX.

For 1895–96 the land-tax yielded £271,000, and the income-tax £94,000; for 1896–97 the yield of the land-tax was £272,000, and the income-tax £105,000; for 1897–98 the land-tax yielded £269,000, and the income-tax £115,000; for 1898–99 the land-tax yielded £298,000, and the income-tax £115,500; and for 1899–1900 the land-tax yielded £294,000, and the income-tax £129,000.

RATES OF TAX.

The rates of tax at present are as follow: The ordinary land-tax is 1d. in the pound; the graduated tax commences at £5,000, at ⅛d. in the pound on the unimproved value, and rises to 2d. where the unimproved value of an owner's land is £210,000, or exceeds that sum. The ordinary tax on Native land occupied by Europeans is ½d. in the pound. For taxpayers other than companies the rate of income-tax is 6d. in the pound on the first taxable £1,000—that is, after deducting the £300 exemption—and 1s. in the pound on any excess over £1,000. A person having an annual income of £1,900 would be thus taxed: £300 would be exempted; £1,000 would pay 6d. in the pound; and the remaining £600, 1s. in the pound: making a total of £55 a year. The tax on an income of £400 would be at 6d. on £100, equal to £2 10s. Income-tax is payable by companies, at the uniform rate of 1s. in the pound.

The schedule of rates of graduated land-tax is as follows:—

Where the value is	£5,000 and is less than £10,000,	one-eighth of a penny in the pound sterling.
Where the value is	£10,000 and is less than £15,000,	two-eighths of a penny in the pound sterling.
Where the value is	£15,000 and is less than £20,000,	three-eighths of a penny in the pound sterling.
Where the value is	£20,000 and is less than £25,000,	four-eighths of a penny in the pound sterling.

Where the value is £25,000 and is less than £30,000, five-eighths of a penny in the pound sterling.
Where the value is £30,000 and is less than £40,000, six-eighths of a penny in the pound sterling.
Where the value is £40,000 and is less than £50,000, seven-eighths of a penny in the pound sterling.
Where the value is £50,000 and is less than £70,000, one penny in the pound sterling.
Where the value is £70,000 and is less than £90,000, one penny and one eighth of a penny in the pound sterling.
Where the value is £90,000 and is less than £110,000, one penny and two-eighths of a penny in the pound sterling.
Where the value is £110,000 and is less than £130,000, one penny and three-eighths of a penny in the pound sterling.
Where the value is £130,000 and is less than £150,000, one penny and four-eighths of a penny in the pound sterling.
Where the value is £150,000 and is less than £170,000, one penny and five-eighths of a penny in the pound sterling.
Where the value is £170,000 and is less than £190,000, one penny and six-eighths of a penny in the pound sterling.
Where the value is £190,000 and is less than £210,000, one penny and seven-eighths of a penny in the pound sterling.
Where the value is £210,000 or exceeds that sum, twopence in the pound sterling.

THE GOVERNMENT VALUATION OF LAND ACT.

During the session of 1896 the Government Valuation of Land Act was passed, providing for the periodical valuation of all landed properties in the colony. For the purposes of the Act it is provided that the colony shall be divided into special districts.

The first valuation under the Act has been completed. The purposes for which the valuations are to be used are: Land-tax, local rates (in cases where rates are levied on the capital or on the unimproved value), stamp duties, and duties under "The Deceased Persons' Estates Duties Act, 1881"; for advances and investments on mortgage of land made by the Post Office, Government Insurance Department, Public Trust Office, Government Advances to Settlers Office, and the Commissioners of the Public Debts Sinking Funds. The valuation will also be used for the guidance of the Government in transactions under "The Land for Settlements Act, 1894," and "The Public Works Act, 1894."

Valuations will be supplied by the department on payment of the prescribed fee.

The general valuation-roll continues in force until a fresh roll is made, but whilst in force it may be altered and amended from time to time. The rolls for rating purposes are supplied to local bodies by the Valuer-General on the request of the local authority. The aim is to insure a standard valuation for all purposes.

Owners and occupiers dissatisfied with their valuations have the right of objection, the procedure being that laid down by "The Rating Act, 1894," and the regulations under "The Government Valuation of Land Act, 1896."

The cost of making the valuation is divided proportionally between the departments mostly using it and the local authorities, while separate fees are provided for by regulation for supplying individual valuations to those requiring them.

RATING ON UNIMPROVED VALUE OF LAND.

In August, 1896, an Act was passed by the General Assembly termed "The Rating on Unimproved Value Act, 1896," for the purpose of affording an opportunity to local bodies of adopting the principle of rating which is expressed in the title of the measure. It is entirely at the option of the bodies to adopt the system, and provision is made for a return to the old system of rating, if desired, after three years' experience of the new one. Under the interpretation clause the term "gross value" means the capital value of land with all its improvements, as assessed by the local authority of the district, the unimproved value of which is to be rateable; and the "unimproved value" is the gross value less that of improvements thereon. "'Improvements' includes water-races, whether constructed by loan or otherwise, houses and buildings, fencing, planting, draining, clearing from timber, scrub, or fern, laying down in grass or pasture, and any other improvements whatsoever on land, in so far as the benefit thereof is unexhausted at the time of valuation, but does not include reclaiming of land from the sea." The Act provides that a proportion of the ratepayers on the roll, varying from 25 per cent. where the total number does not exceed 100, to 15 per cent. where the number exceeds 300, may by demand in writing, delivered to the chairman of the district, require that a proposal to rate property on the basis of the unimproved value may be submitted to the ratepayers, whose votes shall be taken between twenty-one and twenty-eight days after delivery of the demand. The poll is to be taken in the same manner as in case of a proposal to raise a loan in the district under "The Local Bodies' Loans Act, 1886."

A minimum number of one-third of the ratepayers must vote, and a majority of votes carries the proposal.

A rescinding proposal can be carried at a poll by the same means as one for adoption, but not until after three years have elapsed, and, *vice versâ*, rejection of a proposal bars its being again brought forward for a similar period.

In the valuation-roll to be prepared, the gross value, the value of improvements, and the unimproved value of rateable property must all be set forth. Provision is made for adjustment of rating powers given under previous Acts to the new Act by fixing equivalents. Thus a rate of 1s. in the pound on the annual value under former Acts is to be considered equal to ¾d. in the pound on the gross value.

The adjustments are to be made so that the rates on the unimproved value shall be such as to produce as much as, but not more than, the rates under "The Rating Act, 1894." For instance, supposing a local authority has a rating power up to ¾d. in the pound on the gross (or capital) value, then it can levy any rate in the pound on the unimproved value of land in its district *so long as the producing capacity of such rate is not greater than would be the producing capacity of a ¾d. rate on the gross value of the district.* When a fixed rate, under the older system of rating, is security for a loan, the Controller and Auditor-General is given power to interfere and fix the new rate himself if of opinion that the new rate on the unimproved value does not afford equally good security to the one to be given up.

The operation of the Act does not apply to water, gas, electric light, sewage, or hospital and charitable aid rates.

Up to the present time (8th June, 1900) the number of local bodies that have elected to take advantage of the Act is seventeen. Particulars respecting these cases are subjoined:—

"RATING ON UNIMPROVED VALUE ACT, 1896."

Results of Polls.

Cheviot County	Carried.
Eketahuna County	Carried.
Greymouth Borough	Carried.
Hokianga County	Carried.
Hunua Road District	Carried.
Inangahua County	Carried.
Invercargill Borough	Rejected.
Karori Borough	Carried.
Manawatu Road Board	Carried.
Maraetai Road Board	Carried.
Melrose Borough	Carried.
Normanby Town District	Carried.
Pahiatua Borough	Carried.
Pahiatua County	Rejected.
Palmerston North Borough	Carried.
Pelorus Road Board	Carried.
Petone Borough	Rejected.
Picton Borough	Rejected.
Raglan County	Rejected.
Stratford County	Rejected.
Sumner Borough	Rejected.
Tauranga County	Rejected.
Taratahi-Carterton Road District	Carried.
Waipawa County	Carried.
Waimate Borough	Rejected.
Wairarapa North County	Rejected.
Woodville Borough	Carried.
Woolston Borough	Rejected.

Votes recorded.

	For.	Against.	Informal.
Cheviot County	165	41	..
Eketahuna County	149	12	1
Greymouth Borough	147	28	1
Hokianga County	109	25	6
Hunua Road District	60	2	..
Inangahua County	239	11	2
Invercargill Borough	267*	199*	5*
Karori Borough	93	3	1
Manawatu Road Board	105	10	..
Maraetai Road Board	16†	..	..
Melrose Borough	236	40	6
Normanby Town District	82	56	3
Pahiatua Borough	136	38	1
Pahiatua County	312*	21*	1*
Palmerston North Borough	402	12	3
Pelorus Road Board	98	41	..
Petone Borough	72*	5*	1*
Picton Borough	27	73	1
Raglan County	122*	20*	..
Stratford County	449*	13*	..
Sumner Borough	27*	1*	1*
Tauranga County	112*	2*	2*
Taratahi–Carterton Road District	261	53	..
Waimate Borough	100*	16*	2*
Wairarapa North County	331*	68*	10*
Waipawa County	462	28	3
Woodville Borough	175	7	1
Woolston Borough	103	191	5

* As less than one-third of the ratepayers have voted, the proposal is rejected.
† Not yet gazetted.

"THE MUNICIPAL FRANCHISE REFORM ACT, 1898."

A SHORT account of the leading features of this measure is to be found on page 271, in the section relating to the local bodies in the colony.

OLD-AGE PENSIONS.

IN 1898 a Bill, introduced into Parliament by the Right Hon. R. J. Seddon, Premier, became law,[*] which provided for the payment of an old-age pension out of the Consolidated Fund (revenue of the General Government) to persons duly qualified, without contribution by the beneficiaries. The Act, however, only provides for payments out of revenue, for the purposes of the pensions, until the close of the second session of the present Parliament. The conditions under which pension is granted are set forth in sections 7, 8, and 64 of the statute, as under:—

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[*] A Bill had been previously introduced in 1897, which, as amended by the lower branch of the Legislature, was transmitted to the Legislative Council, but thrown out by that body.

As a preliminary to the introduction of the Bill in 1897, an Act entitled "The Registration of People's Claims Act" was passed in 1896, under which persons aged sixty-five years or upwards, having resided twenty years in the colony, and whose income did not exceed £50 per annum, were allowed for a limited time to send in pension claims. This Act has been repealed, and all certificates granted under it cancelled, by the Old Age Pensions Act of 1898.

7. Subject to the provisions of this Act, every person of the full age of sixty-five years or upwards shall, whilst in the colony, be entitled to a pension as hereinafter specified.

8. No such person shall be entitled to a pension under this Act unless he fulfils the following conditions, that is to say:—

(1.) That he is residing in the colony on the date when he establishes his claim to the pension; and also

(2.) That he has so resided continuously for not less than twenty-five years immediately preceding such date:

Provided that continuous residence in the colony shall not be deemed to have been interrupted by occasional absence therefrom unless the total period of all such absence exceeds two years; nor, in the case of a seaman, by absence therefrom whilst serving on board a vessel registered in and trading to and from the colony if he establishes the fact that during such absence his family or home was in the colony; and also

(3.) That during the period of twelve years immediately preceding such date he has not been imprisoned for four months, or on four occasions, for any offence punishable by imprisonment for twelve months or upwards, and dishonouring him in the public estimation; and also

(4.) That during the period of twenty-five years immediately preceding such date he has not been imprisoned for a term of five years with or without hard labour for any offence dishonouring him in the public estimation; and also

(5.) That the claimant has not at any time for a period of six months or upwards, if a husband, deserted his wife, or without just cause failed to provide her with adequate means of maintenance, or neglected to maintain such of his children as were under the age of fourteen years; or, if a wife, deserted her husband or such of her children as were under that age:

Provided that, if the pension-certificate is issued, the pensioner's rights thereunder shall not be affected by any disqualification contained in this subsection unless the fact of such disqualification is established at any time to the satisfaction of a Stipendiary Magistrate; and also

(6.) That he is of good moral character, and is, and has for five years immediately preceding such date been, leading a sober and reputable life; and also

(7.) That his yearly income does not amount to fifty-two pounds or upwards, computed as hereinafter provided; and also

(8.) That the net capital value of his accumulated property does not amount to two hundred and seventy pounds or upwards, computed and assessed as hereinafter provided; and also

(9.) That he has not directly or indirectly deprived himself of property or income in order to qualify for a pension; and also

(10.) That he is the holder of a pension-certificate as hereinafter provided.

64. This Act, in so far as it provides for the granting of pensions, shall not apply to—

(1.) Aboriginal natives of New Zealand to whom moneys other than pensions are paid out of the sums appropriated for Native purposes by "The Civil List Act, 1863"; nor to

(2.) Aliens; nor to

(3.) Naturalised subjects, except such as have been naturalised for the period of five years next preceding the date on which they establish their pension-claims; nor to

(4.) Chinese or other Asiatics, whether naturalised or not.

The full pension is £18 a year, payable in twelve monthly instalments; but for each £1 of income above £34, also for each £15 of accumulated property above £50, £1 is deducted from the amount of the pension.

The first instalment of the pension is payable on the first day of the month next but one following the date of the certificate.

For the administration of the Act the colony is divided into seventy-two districts, for each of which there is a Deputy-Registrar, controlled by a Chief Registrar at Wellington.

Each claimant for a pension must make application on a printed form. The said form is obtainable at any post-office, and when completed the claim is to be sent to the Deputy-Registrar for the district in which the claimant resides.

Each application is recorded in a book called "The .... District Old-age Pension-claim Register," and then transmitted to a Stipendiary Magistrate, who, having fixed a day for investigation, notifies the claimant to attend, if his presence is considered necessary. If the claim is admitted, the Stipendiary Magistrate issues a certificate to the Deputy-Registrar, who on receipt enters the particulars in a book called "The .... District Old-age Pension Register," after which a pension certificate is issued to the pensioner.

The particulars of pensions granted are entered on a weekly return form, which, with the Magistrate's certificate, is sent to the Chief Registrar for entry in the General Register of Old-age Pensions.

The particulars of instalments falling due are advised to the General Post Office on a schedule. Advice, authorising payment, is then issued to the Postmaster at the money-order office at which the pensioner desired the instalment to be paid. At frequent intervals the Accountant of the General Post Office furnishes a statement of the payments made, from which the monthly instalments are entered on a card bearing the name of the pensioner.

At the due date of the instalment the pensioner may present his certificate for payment at the money-order office named in the certificate. A pensioner failing to collect his instalment within twenty-one days forfeits the amount, but may apply for a warrant of waiver within fourteen days of such forfeiture. If a pensioner is unable, through sickness or other reasonable cause, to collect his pension, he may apply to have an agent appointed to receive the instalments on his behalf. Should a pensioner desire to change the office of payment an application is to be made to the Deputy-Registrar for the district in which the pension is registered. The change is advised to the Chief Registrar by telegram, who notifies the postal authorities. A transfer of a pension-certificate from one district to another is effected by the Deputy-Registrar for the district in which the pension is registered sending a warrant to the Deputy-Registrar for the district to which the transfer is made.

The decease of all persons of the age of sixty-five years and upwards is notified to the Chief Registrar by the Registrars of Deaths in the various districts.

All matters affecting the payment of pensions are reported by the Deputy-Registrars from time to time.

The Act came into force on 1st November, 1898. The appointment of a Registrar followed; and in December the old-age pension districts were constituted, and Deputy-Registrars appointed for them. By the 31st March, 1899, a total of 7,487 pensions had been granted, which represented a yearly payment of £128,082, or an average pension of about £17 2s. A year later (31st March, 1900) the number of pensions in force, at each rate, was:—

NUMBER OF PENSIONS IN FORCE, AT EACH RATE, ON THE 31ST MARCH, 1900.

Yearly Pension.	Number of Pensions.	Amount.	Yearly Pension.	Number of Pensions.	Amount.
£		£	£		£
18	9,656	173,808	8	81	648
17	199	3,383	7	58	406
16	209	3,344	6	42	252
15	195	2,925	5	47	235
14	138	1,932	4	38	152
13	134	1,742	3	19	57
12	164	1,968	2	18	36
11	115	1,265	1	10	10
10	97	970			
9	65	585	Totals	11,285	£193,718

The average value of each pension is found to be £17 3s. 4d.

The number of pensions in force in each of the old-age pension districts is also given,—

NUMBER OF PENSIONS IN FORCE IN EACH OLD-AGE PENSION DISTRICT ON THE 31ST MARCH, 1900.

District.	Number of Pensions.	Amount.	District.	Number of Pensions.	Amount.
		£			£
Akaroa	32	542	Kaiapoi	256	4,308
Amberley	6	108	Kaikoura	26	431
Ashburton	170	2,949	Lawrence	183	3,118
Auckland	986	16,508	Marton	90	1,579
Balclutha	122	2,070	Masterton	68	1,186
Blenheim	141	2,364	Maungaturoto	47	771
Chatham Islands	4	72	Milton	106	1,792
Christchurch	1,076	18,334	Mongonui	52	921
Clyde	95	1,688	Motueka	74	1,202
Coromandel	112	1,998	Napier	202	3,357
Culverden	4	60	Naseby	78	1,355
Dannevirke	109	1,830	Nelson	277	4,611
Dargaville	63	1,114	New Plymouth	216	3,633
Dunedin	843	14,559	Oamaru	220	3,848
Fairlie	6	108	Onehunga	302	5,019
Feilding	68	1,160	Otaki	49	850
Geraldine	115	1,984	Paeroa	36	615
Gisborne	100	1,779	Pahiatua	30	506
Greymouth	407	7,250	Palmerston North	135	2,302
Greytown	68	1,181	Palmerston (South)	53	895
Hamilton	170	2,905	Patea	26	467
Havelock	8	134	Port Awanui	47	846
Hawera	45	755	Port Chalmers	177	2,983
Helensville	208	3,606	Queenstown	91	1,628
Hokitika	451	7,984	Raglan	119	1,995
Invercargill	469	8,100	Rawene	109	1,878

NUMBER OF PENSIONS IN FORCE, ETC.—*continued.*

District.	Number of Pensions.	Amount.
Reefton..	123	2,188
Riverton	97	1,697
Rotorua	64	1,149
Russell ..	89	1,499
Stratford	30	527
Taupo ..	32	572
Tauranga	78	1,375
Te Aroha	26	455
Thames	250	4,357
Timaru..	131	2,231
Waimate	66	1,143
Waipawa	17	303
Wairoa ..	109	1,670
Wanganui	168	2,894
Warkworth	74	1,206
Wellington	441	7,726
Westport	215	3,795
Whakatane	135	2,394
Whangarei	161	2,746
Whangaroa	32	553
Total	11,285	£193,718

With the above, a statement of the cost of administration for the year ended 31st March, 1899, is furnished, to show the initial expense. The Registrar of Friendly Societies is Registrar under the Old Age Pensions Act; the Deputy Registrars are mostly Clerks of Stipendiary Magistrate's Courts; the adjudication on claims is by the Magistrates; and the payments are made through the Postal Department.

COST OF ADMINISTRATION OF "THE OLD AGE PENSIONS ACT, 1898," FOR THE FINANCIAL YEAR ENDED 31ST MARCH, 1899.

	£	s.	d.	£	s.	d.
Salaries—						
Registrar	100	1	1			
Deputy Registrars	40	3	10			
				140	4	11
Other expenses—						
Advertising and printing	16	6	0			
Clerical assistance	247	18	0			
Interpreting (S.M. Courts)	7	9	3			
Shorthand-writer (S.M. Courts)	19	0	0			
Travelling-allowances and expenses	76	2	2			
Sundries	3	7	9			
				370	3	2
Total				£510	8	1

The cost of administration for the second financial year (ending 31st March, 1900) shows a total of £2,360 8s. 0d.

	£	s.	d.	£	s.	d.
Salaries—						
Registrar	100	0	0			
Deputy Registrars	150	0	0			
				250	0	0
Other charges—						
Clerical assistance	1,124	3	3			
Contributions to Post-office	465	18	9			
Travelling expenses and interpreters' fees	308	13	7			
Sundries	211	12	5			
				2,110	8	0
Total				£2,360	8	0

The Registrar (Mr. Edmund Mason) remarks, in his departmental report, dated 15th June of this year:—

In my first report I was able to state that the Act had been smoothly and effectively administered from its inception. To this, after a year's additional experience, I may add that the usefulness of the measure is now generally recognised, and that the anticipated difficulties raised by adverse critics are not apparent in its practical working. As a consequence of its success there is very little matter for comment.

It is estimated that on the 31st March, 1900, the number of persons, exclusive of Maoris and Chinese, aged sixty-five years and upwards was 24,800. On this estimate the ratio of the number of pensioners of European descent to the number above the pension-age was, on the last-mentioned date, over 40 per cent.

The number of applications for the second year's pension-certificate received and dealt with up to the 31st March, 1900, was 6,178. Of these, 6,141 were granted, and 37 were rejected.

The number of claims rejected under the respective subsections of section 8 of the Act were: one under subsection (5), twelve under subsection (6), and twenty-four under subsections (7) and (8).

While in some instances the pension has been misapplied, the number of beneficiaries reported as so offending is relatively small. Testimony to the good character of old-age pensioners generally is also borne by the fact that out of 6,178 claims for the second year's pension-certificate dealt with up to the 31st March, 1900, only thirteen were rejected on the ground that the conditions set forth in the subsections of section 8 of the Act relating to character had not been fulfilled.

The ratio of the number of old-age pensioners to total population varies according to locality. This variation is due partly to differences in the percentage of persons above the pension-age, and partly to the fact that in districts where mining is the chief industry a large majority of those who have reached the pension-age are unable to earn a living.

NUMBER OF PENSIONS GRANTED SINCE THE ACT CAME INTO OPERATION; AND NUMBER OF DEATHS, CERTIFICATES CANCELLED, PENSIONS LAPSED AND IN FORCE AT END OF EACH YEAR.

Year ended	Number of Pensions granted.	Number of Deaths of Pensioners.	Number of Pension Certificates cancelled.	Number of Pensions lapsed.	Number of Pensions in Force at End of Year.
31st March, 1899 ..	7,487	38	6	..	7,443
" 1900 ..	4,699	786	65	6	11,285
Total ..	12,186	824	71	6	..

NEW ZEALAND CONSOLS.

THE purpose of "The New Zealand Consols Act, 1894," is, by providing for an inscription of such Consols, to give further facilities for the safe investment of savings. Practically, it establishes another branch of the Government Savings-Bank, with extended power of investment. Under section 3 the Colonial Treasurer is authorised to receive by way of deposits from persons in the colony sums of money up to £500,000; but the amount deposited in any one year must not be more than £250,000. The currency of such deposits is not to exceed forty years. The present issue matures 1st February, 1910. The rate of interest must not exceed 4 per cent. The actual rate being paid is 3½ per cent. per annum.

Post-office money-order offices throughout the colony are made use of to receive applications for inscription, and also for payment of the half-yearly interest on the amounts deposited. The Receivers are the Postmasters, and the Registrar under the Act is the Secretary to the Treasury, Wellington.

Regulations have been issued, under which every deposit of money for inscription is to be accompanied by an application according to the form given further on, which is to be signed by the applicant and countersigned by the Receiver (Postmaster) taking the deposit. The person paying the money receives an interim receipt pending official acknowledgment from the Registrar at Wellington. The receipt subsequently given by the Registrar to the Consols-holder is not a negotiable document, or of monetary value, beyond its being proof of the deposit for purposes of inscription. A holder of Consols can obtain from the Registrar on application and payment of 5s. a certified copy of any entry in the register relating to his deposit.

There is provision for the transfer of Consols from one holder to another on application being made to the Registrar according to the second form given, and payment of 1s. fee.

In case an inscriber desires to make use of his deposit, or any portion of it, to the extent of £5, or a multiple of £5, he can obtain a Consols certificate which is payable to bearer, and is transferable by delivery. This certificate entitles the holder to receive interest half-yearly at the same rate as the original inscription, and also to payment of the principal sum on the due date.

The application for the certificate must be according to the form appended, and the fee payable is 1s. for every one hundred pounds or aliquot part thereof expressed in the certificate. There is also a fee at the above rate for inscribing the amount of a Consols certificate. The form of Consols certificate is also given.

Interest on Consols for which no certificate has been issued is payable by warrant, and such warrants are transferable by indorsement in the manner provided in the form.

Interest on Consols for which a certificate has been issued is payable to the bearer of the certificate on presentation at any post-office money-order office, or at the Treasury, Wellington (see the last form).

The Act provides for the deposit of money by minors, which may be acceptable to parents as encouraging habits of thrift in children.

As stated previously, the present issue of Consols has a currency to the 1st February, 1910, and carries interest at the rate of three pounds ten shillings for every one hundred pounds deposited; and an assured investment of moneys bearing a fair rate of interest for so long a term should secure, when well known, a large portion of the deposits of our thrifty population.

Application for Inscription.

To the Registrar of Inscribed Consols,
Treasury, Wellington.

I [We], , of , having this day deposited at the sum of pounds shillings and pence, for investment in -per-cent. New Zealand Consols, hereby request that the same may be duly inscribed in the books of your office in the name of .

Signature of depositor:
Full address of depositor, together with name of nearest money-order office:

Dated at , this day of , 19 .

Deposit duly received as above.

Signature of Receiver: .

Application for Transfer.

In consideration of the sum of , the receipt whereof is hereby acknowledged, I [we], of do assign the sum of pounds shillings and pence, being my [our] interest or share in the New Zealand -per-cent. Inscribed Consols, under the "The New Zealand Consols Act, 1894," and all my [our] property, right, and interest in and to the same, and the dividends thereon, unto , of , his [their] executors, administrators, or assigns, and the Registrar is hereby requested to transfer the same accordingly. The prescribed fee of is enclosed herewith.

Witness my [our] hand , this day of , 19 .

Signature : .

Witnessed by—
Signature : .
Occupation : .
Address : .

I [We], of , do hereby accept the above Consols, and apply for the transfer thereof to me [us].

Signature :

Witnessed by—
Signature :

Application for Consols Certificate.

Place : .
Date : , 19 .

To the Registrar of Inscribed Consols,
Treasury, Wellington.

I [We], , of , being the holder of New Zealand Inscribed Consols to the amount of pounds shillings and pence, do hereby make application for a Consols certificate in favour of bearer for the sum of pounds, to be issued to me [us] in accordance with and subject to the provisions contained in "The New Zealand Consols Act, 1894." The prescribed fee of is enclosed herewith.

Signature : .

Witness—
Signature : .
Occupation : .
Address : .

Consols Certificate.

No. . £

The bearer of this certificate will be entitled to payment of the sum of pounds sterling upon presentation hereof at the Treasury at Wellington, New Zealand, on the day of , 19 , together with such interest, computed at the rate of sterling per centum per annum, as may be found to be unpaid on the before-mentioned date in accordance with the indorsements of interest-payments made hereon.

The principal and interest are a charge upon and shall be paid out of the accruing income of the Consolidated Fund of the colony.

Interest hereon at the rate of sterling per centum per annum is payable half-yearly, on the and in each year, at any post-office money-order office within the colony.

The amount of interest paid is to be indorsed on the back hereof by the person making such payment.

Dated at the office of the Registrar of Inscribed Consols, Wellington, , 19 .

, Registrar.

Countersigned—
, Controller and Auditor-General.

Entered, folio .

[On the back, indorsements of the half-yearly dividends paid by the Postmaster are to be duly made.]

Dividend Warrant.

To the Treasury at Wellington, or to the Postmaster at any post-office money-order office throughout the colony.

PLEASE pay or order the sum of pounds shillings and pence, being interest for half-year due , 19 , on £ -per-cent. New Zealand Consols.

£ : : . , Registrar.

I hereby acknowledge to have received the above-mentioned sum in full payment of interest for half-year due as above.

Signature:

DESPATCH OF NEW ZEALAND TROOPS FOR ACTIVE SERVICE IN SOUTH AFRICA.

ON Thursday, the 28th September, 1899, the Right Hon. R. J. Seddon moved in the House of Representatives for a respectful address to be presented to His Excellency the Governor, requesting him to offer to the Imperial Government, for service in the Transvaal, a contingent of mounted rifles, and that the Government should be empowered (in the event of the offer being accepted) to provide, equip, and despatch the force. The Premier concluded his speech with the following remarks :—

> It has been said by the historian Macaulay that it would be a New-Zealander who, on a broken arch of London Bridge, would recount the ruin of London and the downfall of the empire. I am sorry for Macaulay; he little knew the New-Zealander. The history of the future will show that the New-Zealander will not recount the downfall of the empire, but will fight to maintain it; and that he will, on that London Bridge, recount the fact that New Zealand to-day took action and a leading step which will, if followed by the other colonies and dependencies, effectually prevent the downfall of the empire. See what is going on now in the way of division of territory in the far East. Look at the nations which are now established in China and in the Pacific. I say our strength lies in being an integral part of the mighty British Empire, and that we should help to maintain its unity intact. And the day is not far distant when, if we take responsibilities and share the burdens and expense of maintaining the empire, we shall have representatives from this colony and the other colonies taking a direct part in the government of a federated empire. I assert we shall, before many years have elapsed, be represented in the council of the nation at Home; the New-Zealander will be advising in council, not croaking on London Bridge. By proving ourselves worthy we shall be entrusted with increased responsibility. We must show that we are equal to the occasion. On this opportunity there should be no division of opinion, no hesitation or shirking of duty. Let it go to the Imperial Parliament, let it go to the world, that we passed this resolution to send help to the Transvaal without a division. We are the first colonial Parliament that has been called upon to do so. Ministers in the other colonies have made offers, but this is the first colony in which the representatives of the people in Parliament assembled have been called upon to give a vote upon this question. Let that vote be practically unanimous; and I trust there may, if possible, be no division taken.

On the question being put, the House divided, and it was resolved in the affirmative, the Ayes being 54, and the Noes 5. The members then rose and fervently sang the National Anthem, and, at the call of the Premier, gave three hearty cheers for Her Majesty the Queen. The resolution was transmitted to the Legislative Council, which body subsequently expressed its satisfaction thereat by Message.

On Monday, the 2nd October, His Excellency the Governor by Message to the House of Representatives, transmitted the following telegram from the Right Hon. the Secretary of State for the Colonies:—

From the SECRETARY OF STATE for the Colonies to His Excellency the GOVERNOR.

30th September.

REFERRING to your telegram of 28th September, Her Majesty's Government highly appreciate and are grateful for loyal and patriotic offer of Legislature of New Zealand, of which they will gladly avail themselves if occasion arises, in which case you will be advised as early as possible.

CHAMBERLAIN.

As the result of the offer of assistance, five contingents have been despatched from New Zealand between the 21st October, 1899, and the 31st March, 1900, consisting in all of 1,797 officers and men, with 1,980 horses; besides which 680 horses for remounts were shipped in May and June following. The number forming the different contingents, which were composed of mounted infantry and bushmen, are given in tabular form:—

RETURN OF NEW ZEALAND TROOPS DESPATCHED ON ACTIVE SERVICE IN SOUTH AFRICA.

No. of Contingent.	Date of Sailing.	Mounted Infantry.		Bushmen.	
		Men.	Horses.	Men.	Horses.
1	21st October, 1899 ..	215	250	..	..
2	21st January, 1900 ..	258	304	..	..
3	17th February, 1900 ..	264	277	..	..
	24th February, 1900 ..	..	96*	..	..
4	24th March, 1900 ..	466	520	..	..
5	31st March, 1900 ..	..	..	523	533
Reserve	24th March, 1900 ..	71	..	..	..
	19th May, 1900	..	180*	..	..
	16th June, 1900	..	500*	..	..
		1,274	2,127	523	533

* Remounts for various contingents.

Totals.

Men.			Horses.
1,274	..	..	2,127
523	..	..	533
1,797			2,660

The names of the vessels by which these troops were despatched, and the number of men conveyed in each vessel, were: s.s. "Waiwera," 21st October, 1899, 215 men; s.s. "Waiwera," 21st January, 1900, 258 men; s.s. "Knight Templar," 17th February, 1900, 264 men; s.s. "Monowai," 24th March, 1900, 245 men; s.s. "Maori," 31st March, 1900, 209 men; s.s. "Waimate," 31st March, 1900, 278 men; s.s. "Gymeric," 31st March, 1900, 328 men.

New Zealand Rough Riders.

SECTION II.

AGRICULTURE IN NEW ZEALAND.

[By M. MURPHY, F.L.S.]

IT is generally admitted that there is no part of the British dominions where agriculture, in its widest sense, can be carried on with so much certainty and with such good results as in New Zealand. The range of latitude, extending as it does from 34° to 47° South, secures for the colony a diversity of climate which renders it suitable for all the products of subtropical and temperate zones, while an insular position protects it from the continuous and parching droughts which periodically inflict such terrible losses on the agriculturist and pastoralist of Australia and South America.

Again, the climate, although somewhat variable, never reaches the extremes of heat or cold. So genial, indeed, is it that most animals and plants, when first introduced to the colony, assume a vigour unknown to them before.

NORTH ISLAND.

All the best forage-plants and grasses thrive most admirably, continuing to grow throughout the year with little intermission. Stock of every sort thrive and fatten rapidly on the pastures, coming to maturity at an early age without the aid of roots or condimental foods. All cereals flourish equally well, more especially Indian corn, which produces from fifty to eighty bushels per acre.

So full is the soil of plant-food that several continuous crops of potatoes or cereals may be taken with little apparent exhaustion. Wheat, oats, and barley thrive where the soil is not too rich; otherwise they produce enormous crops of straw, without a corresponding yield of corn. The tobacco-plant thrives well, as do also hops and sorghum, broom-corn, peanut, hemp, ramee or rhea (China grass), together with a large variety of economic plants, the growth of which will one day afford employment for a large population. In addition to these, all the British, Chinese, and Japanese fruits, with oranges, lemons, limes, olives, and vines (in the northern part), flourish abundantly, requiring but ordinary care. Potatoes are largely grown, and yield heavy crops.

Much of the country along the south-west and west coast is being rapidly taken up, and the primeval forest is fast disappearing before the settler's axe. For the most part, the soil is fertile, and the growth of grass and clover is extremely rapid and vigorous when sown on the surface after the felled timber has been destroyed by fire.

To the British husbandman it will seem almost incredible that the best pasture-grasses grow and thrive as they do with no other preparation than the ashes resulting from the burnt timber—no ploughing and no previous loosening of the soil—yet, in less than a year from the date of scattering the seed, this same land will fatten from five to six sheep per acre.

So rapidly are these fertile forest-lands being cleared and converted into pastures that the demand for stock (principally dairy) has greatly increased, and this demand must continue for a series of years before it is fully met.

Those who in the past have watched the progress of New Zealand, especially of the North Island, have always maintained that when the Maori difficulties and other impediments to settlement were over, the prosperity of the country would advance at a very rapid rate. The time has now come, and all that is required to expedite the coming prosperity is the settlement of our lands by a thrifty class of settlers.

There are millions of acres yet unoccupied, a great portion of which is of good quality, and only waiting the hand of man to make it carry, with very little cost, large herds of dairy stock, with flocks of long-wool and crossbred sheep. The west coast of the island is essentially a cattle-country. Considerable areas in the midland districts are adapted to long-wool sheep, as is also the country along the east coast. Much of the country may be described as being good sheep-land, a large portion of which is quite capable of carrying two sheep to the acre, and some of it as many as three or four.

MIDDLE ISLAND.

If the North Island has a splendid inheritance in her forests, the Middle Island can boast of her magnificent plain-lands, rolling downs, and vast mountain ranges, all of which, to a greater or less degree, have already been made to contribute to the wealth of the colony.

The central portion of the Middle Island presented to the first-comers a vast plain, covered only with waving tussock-grass, offering little or no obstruction to the plough.

Travelling south, the country assumes a different character: easy, undulating downs, well watered, here and there interspersed with fertile plains, the greater portion admirably adapted for agriculture, and all of it suitable for pastoral purposes.

The climate of the Middle Island is not so warm in summer nor so mild in winter as that experienced in the North Island. However, as has already been stated, there are no extremes of heat or cold. Much more might be said in praise of this portion of the colony. It is deemed necessary to say so much in order that readers may better comprehend the comparative ease with which every kind of farming is carried on in New Zealand as compared with other countries less favourably situated.

AGRICULTURAL STATISTICS.

Full particulars, with comparative tables showing the progress of agriculture in the colony, will be found in the statistical portion of this work, Part II., Section XVII.

THE PAST SEASON.

Notwithstanding the extreme variableness of the spring and summer of 1899-1900—characterized by cold cutting winds, and the want of rain at certain times—the year has been a fairly prosperous one for agriculturists. The abnormal crops of all kinds of cereals in the previous year, and the low prices which prevailed for wheat, had the natural effect of curtailing the area devoted to that crop. It is fortunate that such was the case, as, notwithstanding the diminished acreage, prices have not advanced. It is true that when the war broke out in South Africa there was a rise, which, however, proved not to be permanent, prices soon reverting to what they had been before, and, indeed, wheat remained for a time almost unsaleable. As the season progressed, a slight improvement took place, but not sufficient to leave any good margin of profit to the grower. A reference to the agricultural statistics on page 356 will show that the area under wheat in the past season was 269,749 acres, or a falling-off of 129,285 acres as compared with the previous year.

Referring to the pastoral industry, "Ovis," writing in the *Canterbury Agricultural and Pastoral Journal*, has the following remarks, which will not be out of place here. He says:—

> Sheep in poor condition are practically unknown this season. It would appear, however, that the lambing, good as it was, has not made up the deficiency in the sheep stock of Canterbury, and it does not seem probable that our southern neighbours will have any to spare this season. According to the last returns the shortage of sheep in Otago was greater than in Canterbury, and the price being more equalised in the two districts there will be no temptation on the part of Otago sheepowners to oversell, as possibly some of them did last year. Our pastoral industry is certainly liable to very curious vicissitudes. Two years ago we did not know what to do with our store sheep. The man who was fortunate enough to have feed bought and fattened and got gain almost anyhow he liked; but this season it is a question whether the seller of stores is not better off than the man who fattens. The prospects of the frozen lamb and mutton trade are not particularly encouraging, and the margin between the value of store and fat sheep is reduced to the narrowest limits. Breeding ewes, too, are much sought after, and there can be no doubt that the indiscriminate and wholesale sacrifice of ewe lambs for the sake of immediate profit is being severely felt. It is an evil which is likely to work its own cure, only it takes time to effect it. Numbers of farmers are holding their ewe lambs for the simple reason that if they sell them they cannot buy other sheep, at the prices that are going, that are likely to pay them so well to keep. The enhanced value of wool, as compared with several previous seasons, is likely to influence farmers in holding their young stock. Of course it is possible that if the price of frozen lamb should rise later on—and such a contingency is not impossible, as the chief demand for New Zealand lamb does not usually set in till about Easter—many of those who have resolved to keep their ewe lambs may be tempted by higher prices to part with them.
>
> There may be fluctuations in the market, but there appears every reason to think that the price of sheep will rule high throughout this year. Should the

weather be extremely dry during March and April, the prospects for winter feed would be considerably affected, and the price of sheep might suffer in consequence, for it seems to be more a matter of feed than anything else; but, with the country lightly stocked and the turnip crop fairly well established, nothing in the nature of a severe collapse is to be looked for. A few weeks of dry weather can do much in diminishing the feed supply, but as most farmers have now fewer sheep than the land could keep, owners are not likely to be under the necessity of forcing their sheep into the market in great numbers. There is much new grass in the country at present, the laying-down operations of the past two seasons having been successful, and this is necessarily a most important factor in the demand for sheep. The difference in the carrying capacity between new and old grass is enormous. Not only is the bulk of feed greater, and the quality more nutritious, but it grows earlier in the spring, and thus helps to bridge over the critical period after the turnips are finished. And there is the additional consideration that the crops generally being on the light side this year the stubble feed will be good. When the crops are exceptionally heavy—as was the case last year—there is not generally much undergrowth, but with light or patchy crops the stubble-feed counts for a good deal. It seems hardly likely that oats will be used very freely for sheep-feeding purposes during next winter, owing to the demand for export purposes, which promises to continue for some time to come; but the sheep probably will not be badly in want of them. Most farmers prefer a direct profit when they can get it, and only resort to indirect means when no other course is open. Oaten sheaf chaff is somewhat expensive feeding when the price of oats is such as to leave a fair profit on the crop. It is undoubtedly necessary that sheep should be supplied with some sort of dry feed when on turnips, to counteract the overplus of water that the root-crop contains, but for sheep not meant to be fattened good straw is sufficient; and for fattening purposes good hay meets all requirements. Owing to the dry and unfavourable character of the weather in the early part of the spring, hay is not very plentiful throughout the country, and in any season farmers do not pay sufficient attention to this branch of their business. Many, if not the majority of, farmers never save hay in any considerable quantity. Probably this is to be accounted for by the fact that in most seasons the paddocks are so hard stocked that it is not found possible to spare a paddock to lay up for hay until it is too late. Nevertheless, we often see good feed going to waste in the summer which, in view of winter requirements, would pay well for running the mowing-machine and the rake over. And this occurs at a time of the year when there is not usually a great press of work on the farm, and would fill in the time between the completion of the tillage operations and the beginning of harvest.

Hay is not saved, because the grass cannot be spared in the early spring, and also because so much of the pasture is so poor that if a paddock is laid up the hay crop will not come to much unless the season is exceptionally favourable. But the question arises whether it would not pay to have recourse to top-dressing in order to stimulate the growth. Our farmers are slow to realise that circumstances have undergone considerable change during the last few years, and that operations that would not have paid ten years ago may pay very well now. Land is becoming too valuable to allow it to lie comparatively idle, and although it is wise to proceed cautiously in the introduction of new methods which involve the expenditure of more capital on the land, it is inevitable that, as time goes on and population increases, our system of agriculture must become more intensified if we are to hold our own against other countries. Only on the richest soil or on quite new land does anybody attempt to grow turnips or rape now without the aid of artificial manure; and if it is found to pay, as it undoubtedly does, to use manure for turnips or rape, why should not its further application, within limits, be extended to the pastures? It is probable, however, that the system of top-dressing would not be found to answer so well here as it does in Great Britain, for the dry weather to which we are occasionally liable in the early spring would be against it. Nevertheless, it is a matter for surprise that more farmers do not try the experiment, even though it may be on a small scale. If any of the readers of this journal should have tried the experiment of top-dressing, they would be conferring a benefit on the community by making the results of their experiments public. But in records of that kind it is desirable that as much accuracy as possible should be observed—such as the kind of manure used, the amount per acre, the quality of land and previous treatment, as well as the general character of the pasture, and the season at which the manure was applied, and the kind of weather experienced during and after the time of sowing. Scientific experiments, in the true sense of the word, are not within the reach of farmers; but it is quite within their capacity to carry out experiments of a useful and instructive nature. In one sense a farmer's life is one long series of experiments, and probably more experiments, in the stricter sense of the word, are tried than are ever heard of publicly, the general run of farmers having an unaccountable disinclination in such matters for taking their fellow agriculturists and pastoralists into their confidence.

During the past twelve months the sheep farmers of Canterbury have had the somewhat unusual experience of seeing the greater part of the sheep stock of the country in good condition throughout the four seasons of the year. There has been very little heard about sheep in low condition, and this should be the case every year. It would be going too far to say that overstocking may always be avoided by good management, for in some seasons—though such seasons are exceptional—it is an evil difficult to provide against. And it is curious, too, how little the cruelty involved in overstocking seems to strike the minds of many men who are not otherwise wanting in humane feelings. But, apart from the moral aspect of the matter, it may be depended on as an absolutely sound maxim that in the treatment of stock humanity is the best policy. Since last autumn the country generally has been considered understocked, but, if it were possible to work out the net profit derived from the flocks in the aggregate, and leaving out the rise in the price of wool, it is probable, indeed it is almost certain, that the profits shown would be greater than in seasons when the number of sheep was considerably greater, but the feed not quite sufficient for the sheep. What is wanted, however, is not to reduce the number of sheep, but to increase the food-supply, and especially the food-supply at lambing-time. Under the present order of things it is held to be desirable that the lambing should take place early, or, at any rate, at a moderately early period; but, unless special and adequate provision is made, the result of early lambing is that the increase in the number of stock to be fed comes in at a time when the paddocks are in their barest state. The most ordinary common-sense dictates that the wants of the lambing ewes must be provided for by autumn cultivation and sowing, or else the lambing should come at a later period, after the grass has had time to grow. But the proper course is to make provision in the autumn. Many farmers appear to think that if the winter is provided for the spring may be trusted to take care of itself. A well-wintered flock will certainly stand a pinch in the spring better than one that has been half starved, but the advantages of good wintering are to no small extent lost—both as regards ewes and hoggets—if there comes a bad break in the supply of feed, and especially if the shortage of feed is accompanied by severe weather, as is so often the case at the close of the winter.

WHEAT.

The Canterbury Plains, the great wheat-growing district of the Middle Island, extend 150 miles north and south, running inland from the sea for forty miles, the whole forming an area of about 3,000,000 acres. A great portion of this vast plain is admirably adapted for the production of wheat, barley, and oats of the best quality, the growing of which has been carried on extensively since the foundation of the colony. The total area under wheat for threshing in the colony for the season 1899–1900 was 269,749 acres, of which 181,648 acres were grown in Canterbury, the average yields being approximately 32 bushels per acre. The land is for the most part free from stones or impediments of any kind. Single-furrow ploughs are now rarely seen, double- and three-furrow ploughs being in general use, and an occasional steam plough. Three horses, occasionally four, with a man or a boy, can turn over three acres per day on the plains, at a cost of 5s. or 6s. per acre. A stroke of the disc or other harrow, followed by the seed-drill and light harrows, completes the operation of sowing.

Seed-sowing commences in May, and can be continued as weather permits through the winter, and in the heavy swamp-land (drained) on into September and even October. From 1¼ to 1½ and 2 bushels of seed per acre are usually sown, the quantity increasing as the season advances.

Good results are in general obtained by feeding-off the early-sown grain with sheep, followed by the harrows and roller. The average yield on the better class of soil in favourable seasons is from 40 to 60 bushels per acre of dressed grain. The usual general average for the whole colony may be set down at 25 to 30 bushels, according to the season. It must also be stated that the small-bird nuisance (principally the English sparrow) reduces the average by at least 2 to 3 bushels per acre of wheat, oats, and barley. As a set-off against this, however, the destruction of caterpillars and seeds of weeds must be credited to these feathered marauders. Another cause for low averages is the fact that wheat is sown on land entirely too light in quality for that cereal. It will, however, be noted that the general average yield of all our cereals is higher than that of most other countries except that of Britain herself.

OATS AND BARLEY.

Otago and Southland districts excel in the production of oats, which is their principal cereal crop, the breadth of land laid down last season being 210,043 acres of oats, against 61,460 acres of wheat.

The yield of oats in Otago and Southland varies from 40 to 80 bushels per acre, the cost of production being about the same as wheat—viz., £2 per acre when grown from grass-land, and £1 10s. from stubble.

Malting barley, of very superior quality, is grown in Nelson and Marlborough, where the soil and climate appear to be particularly adapted to its culture.

The growing of this cereal (barley) for malting purposes requires more attention than it has yet received in this colony. It is claimed for this crop that it will show a better result than wheat, for the following reasons: (1) It is less exhaustive to the soil; (2) it gives an average yield of from 10 per cent. to 20 per cent. more than wheat; (3) the growing crop in favourable seasons can be fed off twice, or even three times, to the advantage of the subsequent yield of grain. Land of a light and calcareous nature, but unsuitable for wheat, will give a barley thin in the skin, and particularly suited for malting purposes. Barley is not a difficult crop to raise, but there are certain points that need careful attention, which, if neglected, would probably result in the production of an inferior sample, which would hardly pay for growing.

REMARKS ON CEREALS.

Observers of passing events, as affecting rural affairs, must have noted that corn-growing, like that of any other industry, has its cycles of depression, followed by others of prosperity. A few years ago it was predicted that profitable wheat-growing had come to an end in this colony, and indeed it appeared like it when wheat fell to 2s. and 2s. 6d. per bushel. The acceptance of this theory has given an impetus to the cultivation of turnips, rape, barley, oats, peas, &c., for feeding sheep, lambs, and pigs, from which a more certain return can be secured, while large areas of formerly cultivated land reverted to pasture for grazing purposes. The manufacture of cheese and butter also received a lasting stimulus. The curtailment of the wheat area referred to is, indeed, by no means an unmixed evil, for had farmers gone on cropping indiscriminately, our fields would not only have become exhausted, but they would have been polluted with weeds to an irrecoverable extent. Farmers have come to see that a mixed system is the only safe course to pursue now in the management of their land.

ROOT-CROPS.

Potatoes : Potatoes are largely grown throughout New Zealand. On suitable soils very heavy crops are raised, it being no uncommon thing to dig from 8 to 10 tons per acre, although the general average is much lower, for the reason that unsuitable land is frequently devoted to this crop. The area under potatoes in 1899–1900 was 36,984 acres, as against 38,604 acres grown in 1899—a decrease of 1,620 acres. The bulk of the crop is planted without manure, but, where used, bonedust, superphosphate, blood-manure, or animal guano (which may be procured of first quality from the local manure manufactories), from 1 cwt. to 2 cwt. per acre, is applied with good results. The potato is, however, an expensive crop to grow, costing from £5 to £6 per acre. The potato is perhaps the most precarious of all crops, as the prices fluctuate in a most erratic manner. In 1898 the price rose to £7 and £8 per ton; in 1899 it fell to £1 10s. and £2, and the crop of 1900 is barely saleable at £2. Potato growers admit that £1 10s. per ton off the fork will pay better than £2 after being stored for any time. A feeling prevails amongst growers that if regular communication were established between New Zealand, the Cape, and the Islands, as well as China and Japan, a market would probably be opened up for produce, such as potatoes, onions, vegetables, fruits, &c., packed in cases or crates. A consignment of onions has been sent to the English market. It is hoped that the venture will prove successful, as the markets in the Australian Colonies will probably be closed against us in the near future from two causes—a federated Australia, and the rapidly improving condition of the agricultural industry. With extended transcontinental railway communication some one part of the continent will always be in a position to supply the wants of others; it is only a matter of transport. In view of these contingencies New Zealand farmers will have to look further afield for a market for their surplus produce.

Land for potatoes is usually broken out of grass, skim-ploughed in autumn, ploughed deeply in spring, and thoroughly tilled; or potatoes may be grown in drills opened and closed with a double-furrow plough. The seed—15 cwt. per acre—is then ploughed in under every third furrow, the after-culture consisting of harrowing just as the crop is appearing over ground (by this means myriads of seedling weeds are destroyed); drill-grubbing, hoeing, horse-hoeing, and earthing-up being the subsequent operations. Heavy crops of wheat, oats, barley, beans, or peas can always be relied upon after potatoes, season permitting.

Turnips: The turnip crop of this season has been a most unequal one. On the plains of Canterbury the want of rain at the critical period of their growth had a disastrous effect on thousands of acres. The green fly and the turnip moth completed the destruction of large areas to those north; while along under the hills and farther south the rains have sufficed to secure an ample crop, and the later rains have changed the face of nature, which in early autumn was parched and dry, to a verdant green, and there is now a prospect of ample feed for the winter.

On virgin soil turnips can always be relied upon as a certain crop without any manure, even with a single furrow and a couple of strokes of the harrow. But, as most of the land (at least in the Middle Island) has already been cropped, turnips cannot now be successfully grown without the aid of manure. In the nature of things, from a climatic point of view, farm-yard manure cannot be procured in sufficient quantity; artificial manures are therefore largely used, from 1 cwt. to 1½ cwt. of superphosphate of lime per acre being now applied with the best results, securing ample crops of sound roots, from 15 to 30 tons per acre. The seed is sometimes sown in drills on the flat, the manure being dropped in front of the seed by the same machine, from ½ lb. to 1 lb. of seed per acre being used; when sown broadcast a smaller quantity will suffice. Sometimes the manure is deposited in a liquid state by machines manufactured for the purpose, called water-drills. This system invariably secures a rapid and vigorous braird, forcing the young plant into the rough leaf, after which it is secure from the attack of the turnip-beetle, usually the first enemy of the young plant's growth. So soon as the turnip-plants reach the third or fourth leaf, they are thinned by a scuffler, made for the purpose, which is drawn across the drills, bunching the turnips and thoroughly loosening the soil.

The drill-grubber and scuffler are used as required till the leaves meet. This kind of culture produces capital crops at a minimum of cost. In Otago and Southland, where Swede turnips are largely grown, the seed is sown in drills and the young plants are thinned out with the hand-hoe in the same manner as the mangold crop is treated in Canterbury and elsewhere. Large areas are sown broadcast, and, if found too thick, the harrows are run through them; in any case, a stroke of the harrows is a great help in promoting the growth of the plant. The varieties used are Devonshire Grey for early and very late sowing; Purple- and Green-top Aberdeen are the most generally grown. Swede turnips, from their proneness to the attack of the turnip aphis, are not so much grown, though they produce enormous crops in Otago and Southland, where the climate is more suitable. The turnip-crop is generally fed off by sheep intended for freezing. It is estimated that an acre of good turnips, with a little hay or oat-chaff, will fatten from eight to fourteen sheep. Turnip-sowing commences in November, and may be continued till the end of December. Stubble turnips may be sown in March, but this can only be considered as a catch-crop. It, however, often proves of great value, supplying an abundance of green food for ewes with early lambs. Turnip-land is usually sown with oats or barley, and sometimes spring wheat.

Rape is largely grown as sheep-feed, and may be sown either in early spring or immediately after harvest, the stubble being skim-ploughed or broken up with the spring-tined cultivator. This crop is invaluable in the early spring, and may be fed-off in time for oats or barley. Dairy-cattle, however, should not be fed on rape, as doing so destroys the flavour of the milk. This fodder plant ranks next in value to the turnip, and forms a most valuable adjunct to that crop. The following notes are from the pen of an experienced farmer, who writes from his own experience. He says :—

> In my opinion rape, as a crop by itself, without grass, does best in medium to first-class land, as it bears feeding more frequently, and does not wither or go off with aphis in dry weather as soon as it does in the lighter class of land. I always put my best land into rape, following wheat, as then all weeds come up with the rape, and are eaten off by sheep or lambs before they seed; then heavy land, in which weeds are generally so abundant, is kept clean in the cheapest manner, and saves the labour of hoeing, &c., the rape paying the rent while the sheep are eating the weeds. To do this effectively, the rape must be stocked pretty early, as cornbine and fat-hen grow so fast; and it may be necessary to fence off the dirtiest parts of a field, to force dry ewes or wethers to eat the weeds after lambs have had the first picking. Broad-leaf Essex is the variety generally sown in October and November for summer feeding, say, up to the 15th March, or later if it is a dropping season. Quantity of seed per acre depends on the class of land and the preparation given to the seed-bed. If the land has been ploughed twice and worked fine, 2½ lb. to 3 lb. is abundance on good land, and a shade less on lighter. If rape is sown in the autumn for spring feeding, with grass, during February and March, sow 3 lb. to 3½ lb. of seed, as some is destroyed by frost, &c., in winter, and it gives more feed when running to flower in the spring. I much prefer turnip to rape for fattening lambs and sheep after the 1st March. Purple-top Mammoth to feed first, and then Imperial Green Globe to follow. These turnips are sown on clean land, first or

second week in November, with 200 lb. of manure per acre and 6 oz. of seed. I start feeding rape, as a rule, about Christmas, wearing all the lambs as I take off my first draft of fat lambs. In my opinion, it is a great waste to put the ewes on the rape with the lambs, unless the ewes are old and are wanted for the butcher, as rape without grass is not good for producing milk, but simply fattens the ewe. This does not apply to running rape and young grass autumn sown for spring feeding, but, even then, rape is bad for milk in wet weather. Rape by itself, as a rule, follows dun oats or wheat, as previously stated, with the object of keeping down weeds; the first ploughing being done in July, giving twitch, &c., time to rot. To quote a well-known saying, "If farmers in New Zealand do not oust weeds the weeds will soon oust them." I do not grow rape for seed, preferring to buy good clean imported seed, free from weeds. A good crop of rape in a favourable season will fatten fifteen to twenty lambs per acre, all depending on the condition of the lambs put on from time to time, and the skill of the owner. When hay and oatsheaf chaff are cheap, as they usually are in New Zealand, it pays well to give lambs hay or chaff on late rape and early turnips, as it makes a certainty of their fattening quickly, more especially in a wet autumn, if the owner is going to ship his own, and not sell, as the lambs weigh like lead, and the seller does not always get the credit. Early ploughing in July, and rolling on the furrow and cross-ploughing later, is the secret of making the turnip crop a certainty, as the small plants on which the enemies of the turnip live through the winter are destroyed, and the flies, &c., are not exactly on the spot when the young turnip first appears—at least, there are much fewer, and have to come from a distance; also, half, if not two-thirds, of the moisture comes from below, and if weeds and grass are continually growing the land cannot conserve its moisture, nor get any rest, the weeds consuming the food as nature generously makes it. The earth is also warmer when lying up ploughed: thus warmth and moisture, two great essentials in helping land to make its best return, are provided, and Nature, so bountiful in New Zealand, is given a chance to do her duty by man doing his.

Mangolds and Carrots are largely grown in some districts. They cost more money per acre than turnips to produce, as they must be hand-hoed; nor are they so suitable a crop for cleaning the land. Turnip-sowing does not commence till November or December, affording ample time for the destruction of seedling weeds; this important opportunity is largely lost in the culture of the mangold, which is usually sown in October. Mangolds are, however, an invaluable crop on a stock-farm, as they do not reach their primest condition until the turnip-supply is exhausted, usually in August. From 30 to 60 tons per acre is not an uncommon yield of these roots, often without the aid of manure, on rich swamp land.

It must be pointed out that overgrown mangolds are not by any means the most profitable. M. Garold, director of one of the French agricultural stations, in a paper on the subject, refers to the extra expense of carriage involved with large roots, and states that the nutritive value of 15 tons of medium-sized roots is quite equal to that contained in double the quantity of large ones. These remarks are entirely borne out by Mr. G. Gray (lecturer on chemistry, Canterbury Agricultural College) in his report on the analysis of seven samples of roots exhibited at the last winter show of the Canterbury Agricultural and Pastoral Association, submitted to him for analysis.

The following is an extract from the report:—

TABLE I.—PERCENTAGE COMPOSITION OF ROOTS.

—	Aberdeen Purple-top Turnip. (1.)	Aberdeen Green-top Turnip. (2.)	Swede Turnip. (3.)	Golden Tankard Mangold. (4.)	Tankard Mangold. (5.)	Globe Mangold. (6.)	Long Red Mangold. (7.)
Water	91·95	91·81	90·26	87·37	92·33	94·77	91·91
Sugar	3·18	3·88	5·15	8·59	1·21	1·76	2·62
Extractive matter ..	1·79	1·33	2·01	0·98	3·35	0·83	2·50
Fat, colouring matter, &c.	0·53	0·61	0·54	0·33	0·25	0·22	0·16
Albuminoids ..	0·51	0·58	0·53	0·68	0·50	0·35	0·36
Crude fibre.. ..	0·97	1·00	0·83	0·81	0·83	0·60	0·64
Ash..	1·07	0·79	0·68	1·24	1·53	1·47	1·81
Total ..	100·00	100·00	100·00	100·00	100·00	100·00	100·00

TABLE II.—CONDITION OF NITROGEN IN ROOTS.

Percentage of Nitrogen in Dry Matter of Roots.

Albuminoid nitrogen..	1·01	1·15	0·87	0·85	1·05	1·07	0·71
Non-albuminoid „ ..	2·01	0·44	1·59	4·40	1·78	1·50	1·01
Total ..	3·02	1·59	2·46	5·25	2·83	2·57	1·72

Percentage of Total Nitrogen existing as Albuminoids and Non-albuminoids.

Percentage of nitrogen as albuminoids	33·44	72·32	35·36	16·19	37·10	41·63	41·27
Percentage of nitrogen as non-albuminoids	66·56	27·68	64·64	83·81	62·90	58·37	58·73
Total ..	100·00	100·00	100·00	100·00	100·00	100·00	100·00

For the purpose of analysis, segments of each root, cut from the top to the bottom, were taken so as to represent the average composition of the whole. One of the main points shown in the analyses is the large percentage of water existing in roots; only in one case, that of the Golden Tankard mangold, does it fall below 90 per cent. In the dry matter sugar is the constituent present in greatest amount, the mangold just mentioned containing an unusually large amount, pertaining in this respect more to the character of a sugar-beet. The sugar present is mainly in the form of cane-sugar. The term "extractive matter" includes bodies of the pectore group, digestible fibre, &c., which are assumed to have a feeding-value equivalent to starch. The albuminoids indicated in the analyses are true albuminoids, or flesh-formers, the nitrogen not existing as such being shown in Table II. Roots, like other immature vegetable products, are characteristic in containing nitrogen, much of which does not exist as albuminoids, and consequently does not act as flesh-formers. Amides and similar bodies containing nitrogen exist, and also nitrates. Mangolds, especially, contain a large proportion of their nitrogen in the latter form. Crude fibre is that portion of the root which is assumed to be indigestible, having resisted the action of solvents similar to those secreted by the digestive organs;

with this exception the whole of the dry matter in roots is assumed to be digested. The composition of roots depends largely upon the nature of season, soil, and manuring, especially the latter. Nitrogenous manures in excess tend to increase the amount of leaf at the expense of the feeding value of the bulbs, and also to lower the proportion of the nitrogen as albuminoids and increase that existing as amides, &c. Large roots, as a rule, contain more water than smaller ones of the same kind. The specific gravity or density of roots compared to water is a good indication of their feeding value; the greater this is, the higher, as a rule, will be the proportion of nutrient substances present.

As will be seen in the description of the roots examined, several of them were past the stage of maximum feeding value, as shown by a want of compactness in the flesh of the root. The amount of sugar in roots goes on increasing up to a certain point, after which it begins to diminish, being converted into woody fibre, and the root becomes pithy. The comparative feeding value of the several roots may be shown by the number of food units present. These are obtained by adding together the amounts of the albuminoids and fat, and multiplying the result by 2·5, and adding the number so obtained to the percentage of carbo-hydrates, the sugar, extractive matter, &c., present. This is done on the assumption that the fat and albuminoids are, commercially, two and a half times the value of the carbo-hydrates. The food units obtained in this way with the roots examined are as follows:—

	Food Units.
Golden Tankard mangold	12·1
Swede	9·8
Aberdeen Green-top turnip	8·2
Aberdeen Purple-top turnip	7·4
Long Red mangold	6·4
Tankard mangold	6·4
Globe mangold	4·0

Carrots are also a valuable crop, especially for horses; on sandy loams the yield reaches 15 to 20 tons per acre. Carrots impart a pleasant flavour to butter, and should be largely grown for dairy stock.

FERTILISERS.

This industry has now assumed important dimensions—manufactured from the waste products of animals slaughtered for freezing. The demand for fertilisers must increase from year to year, as our lands become more frequently cropped. In the early days of the freezing industry, when the demand for turnips became general, the native-grass land (tussock) was then in its natural state. All that was necessary was to turn this virgin soil over with a shallow furrow, harrow down, and sow the seed (a few ounces) to the acre, without any fertiliser whatever. A good crop was the inevitable result.

The plough has been over almost the whole of our available new lands. It is now found absolutely necessary to sow fertilisers with the seed to give the young plant a start. Assuming that 1½ cwt. per acre is used all over the 588,234 acres in root-crops, this would mean an annual demand for 44,177 tons, without taking into consideration that used for grain, orchards, &c. One of the most practical farmers in New Zealand has, however, given it as his opinion that, with a proper course of rotation, it will be many years before it will be necessary to apply fertilisers to corn crops—except, indeed, in a few extreme cases. Experiments have been made with a view to testing how far fertilisers may be used for raising wheat on the thinner soils of the colony, with varying success. In some cases it has been demonstrated that the application of a nitrogenous manure resulted in an increased yield sufficient to justify the additional outlay per acre, in others the result was not favourable; however, the season has much to do with results from such experiments. The lack of moisture will nullify the good which might otherwise follow the application of fertilisers whether to root or cereal crops.

Notwithstanding the quantity of fertilisers manufactured in the colony, importations are made, principally from Australia. Mr. G. Gray, Lecturer on Chemistry at Canterbury Agricultural College, in a paper on "Soil Fertility" shows that the land is drained annually of 5,871 tons of nitrogen, 1,000 tons of phosphates, 2,438 tons of potash, and 1,006 tons of lime: so that there is room for still further enterprise in the manufacture of manures. Recognising the value of such deposits, the South Australian Government recently offered a reward of £500 to the finder of a payable deposit of coprolites.

SEEDS.

Clover: Saving clover for seed has now become an established and a lucrative industry, adding materially to the farmers' income. Clover is sown with a spring crop, usually of corn, lightly grazed in the following autumn, and then reserved for a crop of hay, which, according to the season, yields from 2 to 3 tons per acre when cut in November or early in December. Some farmers prefer feeding off with sheep in preference to mowing for hay. The after-growth is then allowed to flower and seed, which it does very freely. Thousands of humble-bees may be seen in the clover-fields during the months of January, February, and March. The seed ripens in March, and is then cut and dried, and threshed out by machines known as clover-shellers. An acre of clover may yield in hay and seed from £8 to £10. It must, however, be stated that, while a good crop of clover-seed is a most lucrative one, it is nevertheless a most precarious one. Owing to the lateness of the season of ripening, it sometimes happens that the fertilisation is imperfect, resulting in a majority of barren heads. This has given rise to a controversy as to whether the proper bee has been introduced. The point was referred to Miss Ormerod, the English entomologist, who settled the question in the affirmative.

White and alsike clover are now grown in considerable quantities. White clover yields enormously: as much as 300 lb. of alsike seed has been obtained per acre. These clovers are not so dependent on the action of the humble-bee for their fertilisation. They mature earlier, and are more easily threshed and cleaned than cow-grass and red clover.

Grass-seed Saving: All the most valuable British grasses flourish throughout New Zealand. Cocksfoot has been for many years a staple product of Banks Peninsula (Akaroa County), where the soil for the most part consists of decomposed volcanic rocks and vegetable mould. Large quantities of this seed are now raised in the North Island as well. The seed is of the finest description, frequently weighing 20 lb. to the bushel, 12 lb. being a standard bushel. Cocksfoot thrives on a very wide range of soil, from the richest to the poorest, preferring, of course, the former. It may be found on the dry stony plains of the interior, green and healthy, when the surrounding herbage, introduced or indigenous, has yielded to the heat of the summer sun.

Growing ryegrass for seed is also an important industry. The seed is usually gathered by stripping; sometimes the grass is cut and tied and afterwards threshed by machinery. The average yield is from 15 to 20 bushels per acre, weighing from 25 lb. to 32 lb. per bushel, 20 lb. being the standard weight. A common practice is to graze the land till midsummer; to take the stock off for a few weeks, and then to run the stripper over the ground. By this primitive method 10 bushels per acre are sometimes secured, being of the finest quality. Ryegrass-seed is usually in good demand; the price varies according to the season, the usual price however is from 2s. 6d. to 3s. 6d. and 4s. per bushel.

Meadow fescue, one of the most valuable of all the grasses for permanent pasture on good land, is grown both in the North and Middle Islands, but as yet not very largely. A noticeable instance of the value of this grass for pasture purposes was illustrated in a paddock which came under the writer's notice. The paddock was laid off into three equal parts, and sown with perennial ryegrass, meadow fescue, and Italian ryegrass. When well grown, sheep were turned in. They at once commenced to feed on the fescue, eating it quite bare, while the perennial ryegrass was left almost untouched. The Italian ryegrass received considerable attention. The preference for the fescue was very marked. Growing grass-seed of all the finer kinds should be an important industry in New Zealand, but as yet very little attention is paid to it. All that is required is to select clean land and clean seed to commence with. Carefully conducted, the seed-growing business should prove a lucrative one.

Small Seeds: New Zealand, from the nature of her soil and climate, offers a fine field for growing all kinds of farm and garden seeds. This circumstance has already attracted the attention of some of the larger seed-merchants of Great Britain, whose agents occasionally visit the colony with a view to inducing farmers and others to grow certain kinds of seeds. The industry is peculiarly adapted to small holdings, and well suited to young persons, the work being light and of an interesting character. Ready sale can be found for carefully-grown and carefully-cleaned garden seeds.

OTHER CROPS.

Pulse : Peas and beans are largely grown for pig and horse feed, and for export; they form an excellent preparation for wheat. An extensive trade in peas of a certain description is done in the manufacturing towns of Great Britain; and efforts are now being made to secure a share of this trade for the colony by producing peas suitable for splitting for human food. The business should prove a most remunerative one. Thirty bushels of peas are considered a fair crop, while 40 to 70 bushels of beans are often secured. As showing the extraordinary fertility of some of the lands in the Canterbury District, it may be mentioned that beans and wheat have been grown alternately on Kaiapoi Island for thirty years without any apparent diminution of yield, the crops of recent years being as abundant as those grown years ago; 40 to 50 bushels of wheat and 60 to 70 bushels of beans being the usual return per acre.

Cape Barley and Winter Oats : The demand for early spring feed has resulted in the growing of these plants for forage. Their extreme hardiness renders them well adapted for autumn sowing. If sown in March they are ready for feeding-off in May; they may be fed off again in July, and on till the beginning of October, when, if allowed to run to seed, they will produce 40 to 60 bushels per acre, or they may be ploughed in for turnips.

Tares are also grown, but not so largely as they deserve to be, especially for dairy stock. Mixed with oats, barley, or rye, they are excellent milk-producers; and when grown luxuriantly they destroy all kinds of weeds, and leave the land in fine condition for a spring corn-crop.

Lucerne : This permanent fodder-plant thrives admirably in most parts of New Zealand, yielding three to five cuttings in the year; and, if properly cultivated and well attended to, it will continue to yield liberal cuttings for seven or eight years. This is a most excellent crop for the small or large farmer, furnishing, as it does, an abundant supply of succulent fodder, in deeply-cultivated soils, during the drier months of midsummer, as well as in the early spring. All farm animals are partial to lucerne; pigs thrive admirably upon it. No farm should be without a well cultivated plot of this plant. In deeply-cultivated land lucerne will yield several cuttings during the season, no matter how hot and dry the weather may be. It is this drought-resisting quality which renders lucerne such a valuable fodder plant in Queensland and New South Wales.

COST OF WORKING A FARM IN NEW ZEALAND.

When comparing the cost of working a farm in England with one of the same size in the colony, several points have to be taken into account, such as the climate, the soil, labour, and machinery. In the colonies wages are higher than in Britain; as a set-off against this, the colony can claim, firstly, that there are more fine working days in the year, that the fields are much larger, that the latest improvements in machinery have been introduced, that the soil is more easily worked, and that the genial nature of the climate renders it unnecessary to house stock during the winter months, at least in the North Island, thus saving the cost of attendance; secondly, that farming operations may be carried on continuously throughout the ploughing and sowing season; and, thirdly, that the paddocks are so large, and usually so level, that the double- and treble-furrow plough may be worked by one man or youth with three horses, thus equalising the cost of labour, as we have shown that one man, or even a boy, will be quite equal to two men or boys in the Old Country, so that after all the difference in the rate of wages is not so great as might appear at first sight.

The hay-crop is simply cut one day, raked into windrows the next, and in a couple more it is ready for stacking.

Wheat is cut and tied by machinery, the stooks requiring no capping. It is frequently threshed out of the stook in favourable seasons, thereby saving the cost of stacking and thatching; but this method is not recommended except in hot, dry seasons. When stacked, the stacks are rarely thatched, except, perhaps, on the weather side. This is a wise precaution, the neglect of which sometimes entails serious loss.

The manure bill, which is such a heavy item of annual expenditure with the British farmer, presses as yet very lightly on the farmers of the colony. It is, however, a notable fact that the use of fertilisers is becoming more general; 1 cwt. to 1½ cwt. of superphosphates per acre is used with the turnip and other root-crops, for the purpose of forcing the young plant into the rough leaf, when it will be out of one danger—the turnip-fly. It will nevertheless be seen that the colonial farmer has many advantages over the farmer of the Old Country.

The labour question and the laws regulating it, and other surrounding circumstances, are tending to bring about a considerable change in the condition of things agricultural. There is a fast-growing desire on the part of the workers to acquire holdings of their own, however small, rather than to labour for others. The settlement of the land in small holdings is chiefly, if not entirely, responsible for this laudable ambition.

There can be no doubt but that the policy of settlement has come to stay, and it requires but little power of divination to predict that, in the near future, we shall have a thrifty and numerous body of yeomanry throughout the country—small capitalists, who have gladly availed themselves of the facilities offered by the regulations whereby none of their cash is required for the purchase of the holding, leaving it available for the acquirement of implements and stock.

LIVE STOCK.

Cattle: The total number of cattle in the colony was 1,210,439 for 1899–1900.

Horses: Horses, 261,931, an increase for 1899–1900 of 3,816.

Sheep: If any evidence was required to show how splendidly

New Zealand is adapted for the production of sheep, it would be found in the fact that, according to the latest returns, the sheep stock of the colony in 1899 was 19,348,506. This is a remarkable result when it is considered that 1,719,282 sheep and 1,168,883 lambs were frozen for export in 1898.

Pigs: The stock of pigs, according to the last returns, is set down at 249,751 as against 193,512, showing an increase of 56,239. There is still room for an enormous extension of this industry. With wheat at 2s., oats at 1s. 3d., per bushel, and an abundance of mangolds and carrots, Canterbury alone could do with double the stock of breeding sows now on hand.

SHEEP.

Sheep: New Zealand has proved itself admirably adapted for the breeding of all classes of sheep, from the fine-combing merino to the strongest type of Lincoln. The merino occupies and thrives on the wild lands of the colony, from the snow-line to the border of the plains, as well as on the drier portions of the plains. The merino ewe furnishes the foundation for all the crossbred varieties. On the rich moist soils the Lincoln and Romney Marsh sheep flourish, while the finer English and Border Leicesters occupy the drier lands.

Crossbred Sheep: Those bred from merino ewes and longwool rams, or from crossbred ewes with Down rams, are the most suitable for the frozen-meat trade, and are known as "freezers."

The dapper little Southdowns flourish wherever crossbreds thrive. Their more ponderous cousins, the Shropshire and Hampshire Downs, have their admirers, especially the Shropshire, which are largely used for crossing, with a view to producing early-maturing lambs. English Leicesters are also much sought after for this purpose, particularly in the Middle Island, where "prime Canterbury" mutton is produced.

Since the development of the frozen-meat trade, sheep-farming in the colony has undergone a radical change. At one time wool was the chief consideration, the surplus stock finding its way into the boiling-down vat, the tallow and pelts being the only products of value. Things have marvellously altered since 1882, the inaugural year of the frozen-meat trade. Farming has assumed a new phase, sheep-raising for mutton and wool being the most profitable branch. Small and large flocks of pure and crossbred sheep are now kept on all farms which are suitable for them, the object being the production of early lambs for freezing. The percentage of increase all over the colony is very high, especially in the paddocks, where 100 to 125 per cent. is not uncommon in favourable seasons, while on the hill and unimproved country it varies from 45 to 80 per cent.

Shearing commences in September, and is continued till January. The usual price per hundred is from 15s. to 17s. 6d. Shearing-machines are now largely used.

The average clips for the various breeds of sheep are approximately as follow: Merino, from 4 lb. to 7 lb.; quarter-breds, about 6½ lb.; half-breds, 7½ lb.; three-quarter-breds, 8½ lb.; Leicester, 10½ lb.; Lincoln, 11 lb. Of course, very much larger clips are obtained from special flocks, as much as 25 lb. to 30 lb. per sheep; but the above figures represent general averages.

The staple of New Zealand wool, especially the long-wool and cross-bred, is remarkable for its freedom from breaks and other imperfections incidental to countries subject to long droughts and scarcity of feed.

The most profitable sheep for New Zealand is that which combines the best fleece and the most suitable carcase for freezing purposes, together with early maturity. This is the class of sheep which some sheep-breeders have set themselves to produce. Whether such an animal, having fixity of type, can be evolved, remains to be proved; so much depends on the feed, situation, and soil.

The capability of New Zealand for producing mutton has not yet reached its limit. When the frozen-meat trade was first seriously considered, an assertion to the effect that the colony could soon find 1,000,000 sheep per annum for freezing without impairing the breeding-flocks was treated as highly chimerical by sheep-breeders of long experience. It is found, however, on reference to the statistical returns, that 2,102,533 sheep and 1,272,525 lambs were exported from New Zealand during the year 1899. There are twenty-one freezing-works in the colony, with a full freezing-capacity of 3,665,000 sheep per annum. While congratulating the colony on the rapid development of the frozen-meat trade, it must be borne in mind that in Argentina strenuous efforts are being made to secure a share of the frozen-mutton trade carried on by New Zealand with Great Britain; Australia is also striving hard to share the trade with New Zealand. It must be admitted that with cheaper land, and a closer proximity to the markets of the world, Argentina will necessarily be a very formidable rival with Australasia. The only way to keep command of the market is to ship nothing but first quality mutton and lamb. The development of the frozen mutton industry, especially that of our rivals, may fairly be gauged by the following facts: In 1899 the importations of frozen mutton into Great Britain were valued at £5,439,707. Of this vast sum Australasia contributed £3,282,976; the foreign countries contributing the balance of £2,156,731 were Argentina, £1,490,166; Holland, £629,040; Germany, £1,503; other countries, £36,022.

Raising lambs for the frozen-meat trade has become one of the mainstays of colonial farmers, large and small, especially the latter. As with butter and cheese, the returns are ready cash. The year 1900 may be regarded as a record season for lambs, which have been selling for freezing purposes at prices ranging from 11s. to 15s. a head, a few exceptionally fine lots realising as much as £1 5s. The magnitude of this industry may best be estimated by the fact that in the year ended 31st December, 1899, the colony sent away 1,272,525 lambs. This, with the fact of an export of 2,102,533 sheep, is sufficient evidence of the great and important changes which have come over the agricultural industries of this colony—a condition of things which has brought about a system of farming calculated to develop to the utmost the resources of the country. Some 548,500 acres were devoted to root and other fodder crops this season for feeding sheep.

"The New Zealand Flock-book," published in 1895, is now thoroughly established, and, with careful management, must prove of great service to owners of pure pedigree flocks. The Royal Agricultural Society of Victoria have already published a Flock-book for British breeds of sheep. This is a step in the right direction, as flock-masters in South America demand a certificate to the effect that the cattle and sheep purchased by them are duly registered in an authorised Herd- or Flock-book. The value of these books are now so fully recognised that all the distinctive breeds of sheep in Britain have their recognised registers.

HORSE-BREEDING.

The climate of New Zealand is admirably adapted for the breeding and rearing of horses of all kinds, especially draught-horses. Indeed it would be difficult to find better Clydesdale horses than those bred on the limestone soils of Oamaru and elsewhere. Some of the best blue-blood of this breed has from time to time been imported from Scotland, with the result that the breed is now well established in the colony.

The light-horse stock of the colony has risen into note through the production of animals which have rendered themselves famous on the colonial turf. The demand for horses suitable for remounts for the cavalry service in India is a continuous one, affording a ready market for the proper stamp of animal. Shipments have from time to time been made to that country. The importation, however, of a few really good sires for the production of carriage-horses, hunters, and cavalry mounts would be a national benefit. The fact that the bulk of the horses purchased for the troops in South Africa came from America clearly shows what a good field we should have in this colony for the production on a large scale of this class of horse.

CATTLE.

The colony possesses all the best strains of blood, and this is evidenced by the superior class of cattle to be met with throughout the settled districts, especially in the show yards. There are two Herd-books published by the Canterbury Agricultural and Pastoral Association—one for shorthorns, the other for breeds other than shorthorns. The value of properly kept herd-books is now fully recognised in South America, as all imported stud animals are required to be registered in some herd- or stud-book. New Zealand is free from any of the diseases so disastrous to horned stock in other countries. It is said that Iceland is the only other spot on the earth which enjoys the same immunity. With a view to maintaining this enviable position, the Government have prohibited vessels carrying live-stock from infected colonies touching at any of the ports of New Zealand except under certain conditions. This action is deemed necessary, owing to the prevalence of pleuro-pneumonia in Australia.

DAIRY STOCK.

The breeding of first-class dairy stock offers a field for profitable investment. Milking-cattle now command a fair price, and will continue to do so. The rearing of well-bred heifer calves will repay all the time and trouble bestowed thereon. They must, however, be of exceptionally good quality and from fine milking strains. Separated milk, although relieved of its butter-fat, loses little of its feeding value; the addition of a little linseed meal will restore the fatty constituents, which, however, are not the most valuable for feeding purposes. Ground oats, wheat, or barley added to the linseed mucilage will render calves fit for the butcher in a comparatively short time. An acre or so of European flax should be grown upon every farm where stock-rearing is carried on. The fattening of calves for export has not yet been attempted in the colony, although there is a very large and lucrative market for veal calves in London, ranging from £4 to £6 and £7 per head. Much has still to be done in the way of improving the dairy stock of the colony. The yield of milk from fairly good milking-cattle is approximately 500 gal. per annum, although 700 gal. per head are frequently obtained from selected herds. The average quantity of milk obtained will no doubt be increased as more attention is paid to breeding, and proper feeding. The general management and feeding of dairy stock is a question demanding immediate attention. Kind treatment is essential to success; clean pastures, clear running water, and grasses of the best quality are all factors fully recognised wherever dairying is successfully carried out.

The average yield of butter from milk passed through the separator is 1 lb. for every 2½ gal. of milk of 10½ lb.; so that the average cow produces annually 200 lb. of butter, or 500 lb. of cheese, which, estimated at 4½d. per pound, will be worth about as much as the butter.

THE DAIRY INDUSTRY.

This industry has flourished throughout New Zealand during the past year. Although the milk supply in some districts was curtailed for want of feed, the percentage of cream was greater in proportion. The export of butter for the year ended 31st December, 1899, reached 136,086 cwt., valued at £571,799; and of cheese, 69,440 cwt., value £141,818: or a total of £713,617. This industry is capable of much greater expansion without even increasing the number of milch cattle, but by improvement in breeding. The Government have spent large sums of money in teaching the art of butter-making by the factory system, but little or nothing has as yet been done in the way of encouraging the breeding of better strains of cattle for the production of milk of superior quality as well as quantity. It will thus be seen that this business has now developed into one of the settled industries of the colony, resulting in the introduction of dairy experts, whose business is to instruct the dairy farmers and factory-owners in all the most approved methods of butter and cheese manufacture. Graders are employed examining all butter and cheese for export, who brand each packet with its proper quality. Factory-owners now recognise the fact that it is folly to pay freight on any but the best quality; and this remark applies to grain and meat as well. We have to compete against Canada, the United States, Denmark, Australia, and the Argentine. New Zealand dairymen must, therefore, endeavour to raise dairy cattle which will yield the maximum of milk of the best quality; in fact, nothing but intense farming will pay in the future, applied to every branch.

The sterilising of milk to destroy the germs of diseases like tuberculosis is a wise precaution. The operation consists of heating milk up to a certain temperature, and cooling it rapidly, a process which has been found to destroy the bacillus of tuberculosis known to be present in the milk of affected cattle. The Government veterinaries are employed examining the cattle, and a large number are annually tested with tuberculin.

PIGS.

These useful adjuncts to the dairy should hold a very important position on almost all arable farms. The favourite breed in New Zealand is the improved Berkshire. The large and small breeds of White Yorkshire are also to be met with, but are not so generally approved of as the black pigs. The Tamworth pig has grown in favour with pig-breeders, as they answer admirably for crossing with black pigs. They are sought after for producing bacon pigs, making more lean meat and longer sides than the pure Berkshires. Pigs require no better attention than a good grass paddock, with a liberal supply of roots, and a little unthreshed pea-haulm for a few weeks before killing, with plenty of water, and shelter from the sun during the warmest summer months.

The breeding, rearing, and fattening of pigs is a source of wealth which is capable of considerable expansion. Several plants for the mild curing of bacon have been set up at the various freezing-factories, and by private persons and firms, many of whom are prepared to purchase an almost unlimited number of suitable animals, at prices which should prove remunerative to the grower. The establishment of properly appointed pig-farms is a somewhat costly undertaking, as all the fences must be pig-proof. Doubtless this consideration has had a deterrent effect upon some, while others find the breeding of lambs a sufficiently profitable undertaking, besides causing much less trouble. The industry is growing with the increased demand and the satisfactory prices offered for properly fed pigs. There is, however, room for an enormous expansion of this branch of rural industry.

POULTRY.

The efforts made by the Government to foster this industry are gradually producing the hoped-for results. The dissemination of a better class of poultry is showing good results already. Farmers are beginning to see that their poultry-yard should form no mean auxiliary to the general return from the products of the farm. With such a climate as we have, there need be no difficulty in raising hundreds where dozens are now produced. The department in Victoria has done much to foster this industry amongst their farmers. They receive the poultry in large numbers at the Government refrigerating stores, where they are sorted, packed, and frozen for shipment, with very good results.

THE FRUIT INDUSTRY.

From the North Cape to the Bluff Hill, in the extreme south of the Middle Island, the climate and soil are, for the most part, eminently adapted for the growth of a large variety of fruits. Generally speaking, pears, plums, quinces, apricots, figs, walnuts, cherries, gooseberries, currants, strawberries, and raspberries grow luxuriantly, producing abundant crops of fruit. In the Auckland District, oranges, lemons, and limes flourish: many groves are now bearing, and afford light and pleasant employment to a large number of persons. This employment will go on increasing as the trees become older. The olive flourishes in the North Island, bearing heavy crops, and the manufacture of oil will assume important dimensions at no distant date.

Vine-growing is also carried on with tolerable success in many districts; tons of fruit grown under glass are sold in the Auckland markets annually. Signor Bragato, an Italian wine expert, who visited this colony in 1895, gave it as his opinion that there are numerous localities in both Islands admirably suited for growing vines for the manufacture of wine and raisins.

Away in the far north the banana grows and ripens its fruit, but it is not thought that it will ever enter into successful competition with those imported at so cheap a rate from the Pacific Islands.

Extensive orchards of apples have existed in Auckland for many years, and are still capable of producing an abundance of fruit, if kept free from codlin-moth and other pests. Orchard-planting is progressing, and must one day be a very important industry. Central Otago will also become a large fruit-producing district, being free from violent and scorching north-west winds. All the fruits of the temperate zones flourish there; all that is required is a light railway to tap the district.

The manufacture of cider is already assuming considerable dimensions, opening up a ready market for surplus fruit. The colonial-made article is rapidly coming into favour with the general public.

The drying of fruit has been fostered by the Government, who sent an expert through some of the apple-growing districts, giving practical lessons in the art of artificial fruit-drying. A great deal might also be done in bottling fruits, and the manufacture of fruit-wine, if only for home consumption. These are industries hardly yet touched, but as the orchards mature they may be expected to expand.

The manufacture of jam is carried on with much success, but there is plenty of room for further development in this industry.

TREE-PLANTING.

With a view to encourage the planting of trees, the Government some five years ago introduced the popular American institution of Arbor Day. It is, however, a matter for regret that New Zealand settlers have not as yet entered into the spirit of the institution, as it was hoped they would. Millions of trees have been planted in this way in the United States. Our native forests are fast disappearing before the woodman's axe; it is only a question of time and supplies will have to be drawn from artificial forests, or from foreign sources. Deciduous trees, such as ash, elm, and beech, should be largely planted. A small quantity of ash grown in Canterbury has already come into use for coachbuilding, and has been pronounced by competent experts to be of excellent quality. Plantations of larch might advantageously be made on the southern slopes of the foot-hills skirting the Canterbury Plains and elsewhere. There can be no doubt that a demand will arise for large quantities of larch-poles for mining purposes, &c. The much-despised *Pinus insignis* has a value far beyond what it gets credit for. Its timber is admirably adapted for the manufacture of fruit-cases. On fairly good land it will come into use in less than twenty years. It will also be found suitable for making butter-boxes. The wood, if selected and properly dried, is perfectly free from resin of any kind. A day of retribution will most assuredly overtake this colony for the persistent neglect to plant trees, to compensate in some degree for the wholesale denudation of our native forests. In Canterbury especially the work has been grossly neglected. The Government are, however, taking some steps to remedy the evil, and it is hoped that private enterprise will follow the good example. It is sad to reflect that long before the close of this century there will be a general dearth of timber throughout New Zealand. Our native forests are still being ruthlessly destroyed by the demon fire king, aided by a thoughtless generation. It remains to be seen what will be the climatic effect of the denudation of large areas of forest land. The result in other parts of the world has been to render rainless climates more moist by the extensive planting of trees, while other regions, which have been denuded of their forests, have become comparatively barren wastes for want of sufficient moisture. The present Government, apparently alive to the importance of this question, have established nurseries in the North and South Islands. The Tapanui State Nursery and Forest is well worth a visit, and the work done by the nurserymen is greatly to their credit. The nursery, some twenty acres in extent, and shortly to be added to and its area doubled, is at the foothills of the Blue

Mountains. The whole of the land is tile-drained and in beautiful order, and, with the exception of a small area reserved for growing fodder, all planted out with seedling and yearling trees, mostly hard woods—oak, ash, and walnut—with hard-wood pines. Work in the nursery was only commenced by the State Forester, Mr. H. P. Matthews, in May, 1898, and it is wonderful to notice the amount of labour done in such a short time. There is no "Government stroke" in the State nurseries. The forest to grow the trees when they leave the nurseries is some 850 acres in extent, in the Upper Pomahaka Valley, and already some thousands of trees are growing there most luxuriantly. The forest is also to be a reserve for imported game-birds, but the weasels, stoats, and ferrets with which the country abounds will not allow them to increase. Black games have been turned out already, and other birds are to follow, and the nurserymen are to act as honorary rangers for the Acclimatisation Society.

The following interesting paper, written by Mr. T. W. Adams, of Greendale, Canterbury, is highly instructive, and should be noted by all those who propose planting on a large or small scale. The paper treats on the effects of the drought of 1897–98 on various species of forest trees. Mr. Adams's experience is for the most part based on his observations on the Canterbury Plains, and on his own estate at Greendale, where he has perhaps the most varied collection of trees owned by any person in New Zealand. He says:—

On several occasions dry summers have been succeeded by sharp winters. It was so in 1886. Both the summer and winter of that year were very disastrous to all vegetation on the Plains; in fact, more so than any other year, not even excepting the last. The drought was not so long continued in 1886 as on the last occasion, but the heat for a time was much more intense, and thousands of trees were killed. This drought was followed by a very severe winter, with long continued frosts, the thermometer registering on several nights from 15 to 20 degrees of frost; and a large number of plants were killed, Mr. Armstrong reporting 40 species of trees and shrubs as being killed in the Christchurch Public Gardens, and many others much damaged.

Although the extremes of heat and cold are probably greater in Canterbury than in any other part of New Zealand, yet I think we have a very fine climate here, with many bright sunny days, favourable both to animal and vegetable life; and when compared with many other portions of the globe it will be found that a larger number of plants will flourish here than almost anywhere else of the same latitude. While our summers are generally dry, a long continued drought is of rare occurrence. If we may draw an inference from the past, it would appear that we may expect a very dry summer about every eleven or twelve years, as the summers of 1863, 1874, 1886, and 1897–98 were very dry ones.

In speaking of the drought of 1886 I have said how well, comparatively, the trees went through the long drought of 1897–98, their shallow roots being able apparently to benefit from the frequent light showers that fell, and although many were killed, still the slaughter was not so great as on the former occasion.

Another thing may be noticed, and that is, that it depends somewhat on the time when the drought is most severe as to its effects on different species. Some species make an early growth, others are late in starting; and should the drought occur just when a species is making its most rapid growth, then is the time that it will be most fatal to that species. This will often account for the difference in the effects of drought on the various species in different years—some years one kind suffers badly and almost escapes the next. I may here again make a comparison between the effects of frost and the effects of severe drought on plants. Trees that will go through a winter unharmed if the wood is well ripened will be killed to the ground if the frost comes before their growth is finished.

Although first the drought and then the frost have blasted our hopes of success with many goodly trees, yet lessons have been learned and experience gained that will be of service in the future. It will probably be a long time before we are able to speak confidently as to the best and most profitable trees for the Canterbury Plains, but the experience gained has taught us that we cannot rely on the larch, Norway spruce, or Scotch pine for either ornament or profit here, except under exceptionally favourable circumstances, our climate being much too dry for them to succeed in. If we turn to Australia we find a number of species that are quite happy in our driest summers, but are altogether too tender to pass through our winters, and grow into useful or ornamental trees. So far, I think, our greatest success has been with Californian trees, and in California we have a wonderful wealth of forest to choose from, there being no less than sixty species of cone-bearers on the west coast of America, most of them in the State of California; besides these there are large evergreen oaks, and other trees. Of the successful introductions from California, the *Pinus insignis* and *Cupressus macrocarpa* are familiar to every one. Other pines from there that seem quite able to withstand such droughts as we are liable to are *Pinus coulterii*, *P. sabiniana*, *P. ponderosa*, and its varieties *P. jeffreyi* and *benthamiana*, also *P. fremontiana*, *P. muricata*, and *P. tuberculata*; of the cypresses, other than macrocarpa, *C. benthami*, *C. knightiana*, *C. goveniana* may be mentioned; *benthami* and *knightiana* growing faster than *Cupressus macrocarpa*. But *all* trees from the west coast of America will not succeed, those that have failed being almost as numerous as those that have succeeded, and of the failures those two grand trees, *Wellingtonia gigantea* and *Sequoia sempervirens* are conspicuous and much to be regretted, although they may be and should be grown for ornament where the necessary conditions are to be found. In the hot lake district of the North Island, judging from their appearance, they seem exactly suited, and will, some day, become a feature of the district. Two other beautiful Western American trees, *Cupressus lawsoniana* and *Thuja gigantea*; both good timber-trees in their native localities, and very ornamental here when grown under favourable conditions, but both failed badly to stand the severe weather in 1897–98, and many perished. *Cupressus nutkaensis*, a tree very closely allied to *Cupressus lawsoniana*, if one may judge from about a half-dozen specimens, seems likely to do well. Of the *Piceas* (*Abies* of the Americans), not one of them appears suitable for general planting, being killed by the thousand in 1886, and in large numbers by the last drought; in some cases after they had reached the height of 20 ft. or more.

The *Piceas* have not been planted in sufficient numbers to enable one to form a correct estimate of their value as drought-resisters, but I believe they will, or several members of the family will, prove useful and very ornamental trees, particularly *Picea concolor*, *P. nobilis*, *P. pinsapo*, *P. pectinata* and *P. nordmanniana*. Of two or three hundred plants of *Piceas* of different species, not any of them were seriously injured by the drought, and in one case the *P. pinsapo*, growing with *Cupressus lawsoniana*, escaped, while most of *C. lawsoniana* were killed. *Libocedrus decurrens* is another tree of considerable promise for planting in dry places, as none were destroyed by the drought out of several hundreds in my plantations, but it will require a longer trial before their success is quite assured.

Of the Japanese trees, which are quite a success in some parts of New Zealand, scarcely one seems able to bear the burning sun and heat of the Canterbury Plains. A few plants each of many species have been tried, and always with the same result—that the drought kills them, unless they have the help of an artificial water-supply. The juniper family seems a hardy race, and few, if any, were destroyed by the long drought; they are generally only shrubs or small trees, yet I think they will prove of considerable service. *Juniperus virginiana* succeeds on the American prairies, and so far has succeeded well on these plains.

The three cedars — *Cedrus deodara*, *Cedrus atlantica*, and the Lebanon cedar—all thrive well; and out of a few hundreds planted by me all lived through the bad seasons, and give promise of success, particularly the African one—*Cedrus atlantica*.

I might mention several other species of the conifer family that have been tested in small numbers, but until they are more fully developed no satisfactory conclusions can be drawn as to their worth here.

In speaking of deciduous trees, I have already said that the larch is a complete failure, and that the oak suffered more in the drought of 1897–98 than it had on any previous occasion, although very few were actually killed. Of the other deciduous trees that have been extensively planted, I may first notice the willows. Most of the willow family require a considerable amount of moisture in the soil for their successful growth, and when month after month went by, and the rains were not sufficient to keep the streams running, the willows presented a very wretched appearance, and, if not actually destroyed, several feet, or even yards, of the upper part of the trees died back, and they only managed to live through the last summer without, in many cases, making any new growth. One species of willow and its varieties may be mentioned as an exception with regard to the amount of moisture required to grow them. I refer to the goat-willow, *Salix caprea*, and the variety *Salix saxatella*. These will grow where the elm, oak, and ash can be grown. Of this I had a good illustration, having planted a collection of species of willow in what was usually a moist place, but which became very dry; the only ones left alive were of the goat-willow family. I noticed, too, what I had noticed before, that the Huntingdon willow (*Salix alba*), was the first to suffer from the drought.

Of the poplar family, the Lombardy poplar is not only superior to all other poplars in its ability to withstand drought, but I believe is superior to any other deciduous tree yet introduced into cultivation, or at all events into common cultivation, to stand dry weather. The grey poplar, too (*Populus canescens*), seems capable of withstanding a considerable amount of dry weather; but the balsam poplar (*P. balsamifera*) is soon killed if the roots are not within the reach of water. On the American prairies a species of poplar known as cottonwood (*P. monolifera*) is very largely depended on for shelter; other deciduous trees that thrive on the dry plains of Kansas and Nebraska are the black walnut (*Juglans nigra*), the negunda and silver maples, the red elm (*Ulmus fulva*), the green ash (*Fraxinus viridis*), and the *Catalpa specioso*. Having had some experience of each of them, except the silver maple, I think they are equally suited for the Canterbury Plains; but it is too early to speak with perfect confidence. The Americans are nothing if they are not practical, and much valuable information may be gathered from their experience of tree-planting on the prairies, although the conditions differ somewhat, our winters not being so severe as theirs leaves us a much greater number of evergreens to select from suitable for planting here.

To mention all the species of trees growing in Canterbury is unnecessary, but of the common European trees we have the walnut, ash, beech, elm, Spanish chestnut, and maple, all growing with more or less success; but generally they are of very slow growth when compared with evergreens of the pine and cypress families; and less able to endure our very dry summers, particularly the hot winds, which break up and destroy their broad leaves, and thus the winds are more detrimental to their growth than even the dryness of the soil. Some of the maples give considerable promise of being successfully grown, as they have passed through the bad seasons with less injury than many others of the deciduous trees. Those suffering but little are the English maple (*Acer campestre*), the box elder (*Acer negundo*), and the silver maple (*Acer dasycarpum*); these three species give good promise of success, and should they come to be at all generally planted they will add greatly to the beauty of the autumn by their bright tints. The sycamore and the sugar maple do not succeed at all well, and can only be recommended for planting when the position is near to water. Several other maples have been introduced, but are not in sufficient numbers to allow one to form any reliable opinion as yet of their fitness for general planting, or how they will bear the occasional droughts of our summers. Neither the walnut, beech, or Spanish chestnut grow satisfactorily on the Plains except where their roots are within reach of water. The leaves of the elm are not so much injured by the hot winds as many other trees, and it makes a better growth than the ash, which suffers very much from the loss of its leaves by wind.

To close: Briefly, the effects of the long dry seasons of 1897 and 1898, with our previous experience, has been to show that we cannot grow successfully the trees that are most depended on in Britain, such as the larch, spruce, Scotch pine, &c: that we have no native trees that give promise of success on the Plains; but in a number of species introduced from various parts of the world we have several trees that we may hope will prove able to withstand all the changes of our climate, and afford good timber, and give the necessary shelter, shade, and ornament.

PROSPECTS OF SMALL FARMERS.

Those who have watched the course of events in other countries, so far as they affect the agricultural interests of New Zealand, have come to the conclusion that New Zealand will have to pay greater attention to the quality of her agricultural exports than has been given to them in the past. Our farmers cannot hope to compete with such countries as Australia and South America, where land is so much cheaper, and where mutton and beef of good quality can be produced; for cheap meat these must command the markets of the world. Happily for New Zealand, our climate and pastures are such that we can not only produce mutton equal to the finest English or Scotch, but we can produce more per acre than can be done in Australia. Our dairy-produce is now second to none, which is largely due to the system of manufacture.

Owing to her humid climate and fertile soil New Zealand is peculiarly well adapted for small holdings. Men of slender means can easily make homes for themselves and their families, always provided they know something of the work they undertake, and are, with their families, willing to work hard and live frugally for a few years. It is quite possible for a man with a few cows and pigs, together with poultry and bees, to make a good living, as markets for these products are now being opened up in England, and there is a good local market if the goods are properly prepared. There is also a continuous demand for the supply of coastal and ocean-going steamers. The facilities now given for obtaining land and money at reasonable rates offer great inducements to persons to settle upon the land. This is amply illustrated at Cheviot, where a fine estate has been cut up into moderate-sized farms, and let to farmers on perpetual lease at a rental representing 4 per cent. on the purchase-money. Prosperous homes are springing up all over the settlement. Its success will be assured when the proposed line is completed, connecting the settlement by rail with the local markets and the port of shipment. There are thousands of acres in the North Island adapted for farming, and much land there is being taken up.

NEW ZEALAND HEMP.

[Supplied by Mr. JOHN HOLMES.]

FEW matters are of greater importance to a colony than the development of its natural resources

One of the advantages possessed by New Zealand as a producing country is the large area of *Phormium tenax*.

To those resident outside New Zealand it may be of interest to learn that this plant is indigenous to the country, and grows plentifully without cultivation both in the North and South Islands. The heaviest returns are obtained from the Manawatu district, about eighty miles from Wellington, where the swamp lands in and around Foxton have produced as much as 40 tons of raw material to the acre. The price paid by the hemp-millers varies from time to time in sympathy with the rise or fall of the fibre market. Owners of large blocks of land bearing the raw material have received very remunerative royalties for the right of cutting. These have averaged from 2s. 6d. to 5s. per ton, dependent upon the district from which the supply is obtainable, but the average price in the Foxton district during the past year represents about 3s. per ton on the raw material. Taking an estimate of 3s. per ton with an average crop of 25 tons to the acre, it will thus be seen that property-owners have in such cases netted £3 15s. per acre, while others have obtained as high as £6 per acre from land which for the most part is unsuitable for any other cultivation. It requires on the average between 7 and 8 tons of green blades to make 1 ton of dressed fibre.

The hemp industry has gone through various fluctuations since the Maoris first began to export to the Sydney market their hand-dressed fibre. Between 1828 and 1832 the Natives shipped no less than fifty thousand pounds' worth to New South Wales. It was not, however, until after 1861 that machine-dressed fibre began to be known.

The following statement shows the export of hemp from 1853 to 1899:—

Year.	Weight. Tons.	Value. £	Year.	Weight. Tons.	Value. £
1853	46	1,046	1877	1,053	18,826
1854	48	1,563	1878	623	10,666
1855	150	4,674	1879	445	7,874
1856	22	552	1880	915	15,911
1857	38	710	1881	1,308	26,385
1858	64	1,516	1882	2,040	41,955
1859	77	1,593	1883	2,084	37,586
1860	61	1,240	1884	1,624	24,500
1861	2	43	1885	1,112	16,863
1862	13	261	1886	1,148	16,177
1863	13	251	1887	1,578	25,094
1864	7	170	1888	4,042	75,269
1865	3	75	1889	17,084	361,182
1866	45	996	1890	21,158	381,789
1867	126	4,256	1891	15,809	281,514
1868	534	8,137	1892	12,793	214,542
1869	2,027	45,245	1893	12,587	219,375
1870	5,470	132,578	1894	4,677	66,256
1871	4,248	90,611	1895	1,806	21,040
1872	3,986	99,405	1896	2,968	32,985
1873	6,454	143,799	1897	2,769	30,674
1874	2,039	37,690	1898	4,850	74,556
1875	639	11,742	1899	10,371	184,411
1876	897	18,285			

It is remarkable that, so far, no process, mechanical or chemical, has been invented capable of preparing fibre equal to that produced by the Natives fully sixty years ago, but the Government has encouraged the industry by offering two bonuses of £1,750 and £250 respectively for—(1.) The best process (mechanical or chemical) for dressing which shall materially reduce the cost of production, improve the quality, and increase the quantity of dressed fibre produced from a given weight of the raw material. (2.) The best process for utilising the waste products of the hemp—viz., tow.

The Department of Agriculture at Wellington is always willing to supply the fullest information concerning the conditions of the above bonuses. The time for receiving applications expired on the 31st March last, and a number of applications have been received which are now under consideration. Should the Commissioners appointed not find any of the processes submitted fulfil the conditions laid down, in such case the Government will extend the time for a further period, to enable others who have spent years of valuable time and large sums of money in experiments to perfect their various processes. There are inventors and engineers resident in this colony worthy of the best consideration for the persistent efforts made by them to perfect their several plans with a view of still further improving the quality of the fibre for export.

With the wider knowledge gained during my investigation of the fibre markets of Europe, the United States of America, and Canada, when commissioned by the New Zealand Government and the producers, I am convinced that a large and profitable market can be found for New Zealand hemp. But compulsory grading under the careful supervision of absolutely independent and competent men is essential to secure the supply of a standard article of uniform quality.

THE COAL-DEPOSITS OF NEW ZEALAND.

[By P. Galvin, Secretary Mining Bureau.]

All the formations in New Zealand which contain workable seams of coal belong to the Secondary or Mesozoic and to the Tertiary or Cenozoic epochs. The quality of the coal found in this colony is extremely varied, some of it being for all practical purposes equal, if not superior, to much of the coal used in other parts of the world; while, on the other hand, a great deal is of a comparatively inferior description, though it still has a great local value as a fuel in the districts where it occurs. The coals found in New Zealand have been divided into two groups, under the terms hydrous and anhydrous coals, or those which contain a large percentage of water chemically combined with them, and those which may be assumed to have been deprived of that water by a chemical change.

I. HYDROUS COALS.

The hydrous coals may be conveniently distinguished as lignites, pitch coals, and glance coals. A point worthy of remark is that where, as in Europe, the deposits of brown coal (or lignite, as it is usually termed) occur generally in beds of immense thickness, but confined to limited areas, those of New Zealand form regular seams of moderate thickness, and associated with alternating beds of clay, shale, and sandstone, somewhat as with the older coal formation of carboniferous age. As a rule, the hydrous coal-measures lie on the eastern slopes of the axial rocks in the South Island, and to the west of the main axis in the North Island; whereas the anhydrous coalfields are confined chiefly to the west coast of the South Island. The hydrous coal is of a brown colour, but hard and glossy, and frequently contains a quantity of fossil resin, this being due to the remains of an *Araucaria* somewhat allied to the kauri of the North Island.

The principal defect of the hydrous coal is its weight in proportion to bulk, and its tendency to crack and break into small fragments by desiccation and exposure to the atmosphere. The different varieties of hydrous coals, however, are not all equally subject to this defect, and some of the better qualities of glance coal are scarcely affected in this way. Partly on this account the hydrous coals may be divided into three sub-groups:—

(1.) Lignite, or common brown coal, containing a high percentage of water, and in which a woody structure is very apparent.

(2.) Pitch coal, in which there is still a high percentage of water, and frequently a woody structure is seen. Its aspect is glossy, dark-brown, or black, and does not soil the fingers. Usually, this coal desiccates freely on exposure to the atmosphere.

(3.) Glance coal is hard and semi-laminated with bright and dull laminæ, as in the case of bituminous coals; contains a smaller percentage of water generally than the other two sub-groups, and does not desiccate by exposure to the atmosphere; seldom shows woody structures; and constitutes an excellent steam-coal for stationary engines and railway purposes, but is inferior in this respect for ocean-going steamers to the anhydrous coals.

The hydrous coals are extensively developed throughout the coastal and interior regions of southern and eastern Otago, while an inferior quality of lignite is abundant in Central Otago. The better-known fields are Nightcaps, in Southland; Kaitangata, in Bruce County; Green Island, near Dunedin; Shag Point, in the Oamaru district, North-eastern Otago; the Waiau Valley, in Southern Canterbury; the Ashburton district and Malvern Hills, in Central Canterbury; on the west coast of the South Island, in the higher seams in the Brunner field; in the Inangahua Valley most of the seams must be regarded as pitch and glance coals; while the coals of Puponga and West Wanganui belong to these subdivisions, those of Puponga being a high-class glance coal.

On the west coast of the North Island the coals of the Mokau Valley are glance coals: the field extends east to the Wanganui River, in which part the coals are not of quite equal value. Pitch coals are found in the district of Kawhia, on the north-west side of the range from the Mokau Valley. In the Lower Waikato Valley there are extensive deposits of both glance and pitch coals, of which Taupiri exemplifies one form (glance coal) and Miranda and Surrey Hills the other (pitch coal). These coal-measures extend along the west coast of Auckland, between Kawhia Harbour and the Waikato Heads. Glance coals are found abundantly in the neighbourhood of Whangarei, and from thence to Hikurangi, where, and also at Ngunguru, glance coal of a superior description is found, and is sometimes classed as semi-bituminous. Lastly, the well-known coal of Kawakawa, which is semi-bituminous, in the most northerly of the hydrous coalfields of New Zealand.

II. ANHYDROUS COALS.

Under this group have been classed all the coals found in New Zealand which resemble in quality the coals imported from England and Australia. The composition of the coals comprised in this group is very varied, but is not more so than is usually found in different coal-seams in other countries. The only point in which as a class they are deficient in any of the characteristics which are laid down as requisite for a perfect steam-fuel is in the solidity and toughness which enables the coal to withstand the constant attrition it must experience from the motion of the vessel. This defect is, however, comparatively insignificant, and is more than compensated for (except in a few instances) by the purity of the coal, its tendency to cake, and the facility with which complete combustion can be effected; so that the loss by the formation of cinders will be much below the average.

The most important development of the coal-seams in this class is on the west coast of the South Island, where the formation occurs resting on a surface generally of metamorphic and crystalline rock. Beginning in the south, the first development of this coal is between the Haast and Paringa Rivers; next, the Grey Valley Coalfields, consisting of the Brunner area, Coal Creek, and Blackball, and an as yet unexplored area on the Paparoa Mountains, between Totara Flat and Bullock Creek on the westerly side; then the Mount Rochfort, Ngakawau, and Mokihinui coal areas, lying between the lower parts of the Buller and the Mokihinui Rivers. The Wallsend and Pakawau Mines, in the Collingwood district, also contain bituminous coals, but the actual extent of the area has not yet been explored.

III. ANTHRACITE COALS.

In connection with both the hydrous and anhydrous coals there are developments of anthracite. Associated with the hydrous coals there are the anthracite coals of the Acheron River, within the Rakaia Valley, in Canterbury, and of the Broken River, in the

Waimakariri basin; these are, however, local and unimportant. In connection with the bituminous coals there is a 6 ft. seam of anthracite in the valley of the Fox River, ten miles south-west of Charleston.

QUANTITY OF COAL RAISED IN NEW ZEALAND.

According to the coal-mining statistics, the total quantity of coal raised in the colony up to the 31st December, 1899, was 13,458,880 tons, of which 10,855,612 tons are credited to the South and 2,603,268 tons to the North Island.

The output of coal during the year 1899 was 975,234 tons, of which 588,036 tons were classed as bituminous or semi-bituminous coal, 37,835 tons pitch coal, 314,542 tons brown coal, and 34,821 tons lignite. Twenty-one years ago the total output was less than a quarter of a million tons; this year it will probably exceed a million tons. It will thus be seen that the development of our coal-measures has kept pace with the numerous and growing industries which are distributed throughout the colony.

Some particulars of the operations of two of the leading coal companies will not be out of place here.

THE WESTPORT COAL COMPANY (LIMITED).

This company's leases comprise 5,430 acres of the Buller Coal Reserve, held from the Crown for a term of ninety-nine years. One of these, the Coalbrookdale, is situated to the north-west of Westport, at a distance of about fourteen miles from that town, and lies between the head-waters of the Waratea Creek and the Waimangaroa River. The lease contains an area of 2,480 acres, the well-known Coalbrookdale seam, which has been traced through the property, varying in thickness from 15 ft. to 20 ft. The position of the workings, situated as they are at an elevation above the sea, renders special appliances necessary for bringing the coal down to the railway which conveys it to Westport. Within the distance of a mile the fall is no less than 1,700 ft. The descent is accomplished by two inclines, the upper being 33 chains in horizontal length, with a total vertical fall of 830 ft. on a grade of 1 in 1·3. The lower incline is 50 chains in length, with a fall of 864 ft. in that distance, the maximum grade being 1 in 2·2. The inclines are worked by direct rope-haulage, and the descending weight is utilised to haul up the empty return wagons. A 4 in. steel-wire rope is used, to which the wagons are attached on starting down the incline, the gross weight of the load, wagon included, being about 11 tons. Special brakes are required for lowering loads of such weight over such a steep incline. The brake employed resembles a direct-acting horizonal winding-engine, but the action is exactly the converse. Water is used to check the action of the pistons instead of steam to give them motion. The water is drawn off at each stroke, and its place supplied by cold water, as the intense strain would otherwise raise it to boiling-point. The incline is laid with flat-bottomed rails, 40 lb. to the yard. At the top it is a three-railed line (a double line), where the ascending and descending wagons pass each other, and a single line on the lower portion. The average number of wagons lowered per hour is about fifteen. The wagons are lowered to the foot of the incline, and are then taken by locomotive over the company's railway-line as far as its junction with the Government line at Waimangaroa, thence over the last-mentioned line to Westport. The task of bringing the coal from the various workings to the head of the incline requires appliances of a different kind from those just described. What is called the endless-rope system is used. The main line of this is about two miles long, and is connected with two subsidiary lines. The line is worked by a 3·5 in. steel rope, coiled in four turns round a surging-drum, 6 ft. 8 in. in diameter and faced with steel. The Coalbrookdale branch is over a mile in length, and follows the direction of the Waimangaroa Stream in a south and south-west direction. The other line, known as the Iron Bridge line, crosses the Waimangaroa and opens up the field to the south-east. On both lines the grades are somewhat steep in places. The stiffest grade on the main line is 1 in 10, on the feeding lines; it is 1 in 5 on the Iron Bridge line; and 1 in 14·7 on the Coalbrookdale. The Coalbrookdale line is all above ground. At the top of the incline is situated the Township of Denniston. Here are situated the screens for screening the coals, and the company's carpenters' and blacksmiths' shops, which are furnished with all the latest appliances. The incline was designed by and carried out under the supervision of Messrs. Young Brothers, engineers, of Westport.

The lease at Millerton, which is situated about ten miles north-east from the Coalbrookdale workings, contains 2,950 acres. The coal is of a uniformly good quality, the seam being from 8 ft. to 24 ft. thick. At this colliery a large endless-rope-haulage system has been adopted to lower the coal-tubs from the mine to the heapstead and screens at the foot of the hill, 1,500 ft. below. The hydraulic brake at the top of the lower incline, which is probably the largest piece of machinery in the colonies, was constructed by Anderson and Co., of Christchurch. The centre shaft is 12 in. diameter and 9 ft. long; the surging-drum, round which the rope is coiled three times and a half, is 12 ft. diameter. The rope was manufactured by George Cradock and Co., Wakefield, England, from Cradock's improved plough-steel, and has a breaking-strain of 101 tons. The cylinders and pass-pipes are tested to 500 lb. per square inch. In addition to the hydraulic brake, there is a powerful strap brake which can be applied in case of emergency, or when bringing load to a dead stop. The lower incline is 50 chains long, has an average grade of 1 in 3·75 over the whole length, and will, when fully loaded, have fifty full tubs and fifty empty ones on alternate sides. As the tubs carry 17½ cwt. of coal each, and the rope runs from two miles and a half to three miles per hour, the output is expected to reach 1,600 tons in eight hours' work. The upper incline is 51 chains long, and extends 28 chains into the mine, making a total length of 79 chains. It is worked with a hydraulic brake made by A. and T. Burt, Dunedin. The average grade throughout the whole length is 1 in 15, and when fully loaded will have seventy-nine full and seventy-nine empty tubs on alternate sides: its capacity is the same as the lower incline. At the foot the screening plant is fully up to date. The shaking screen, with side tippler, was constructed by the Anchor Company, Nelson: its capabilities are 400 tons of screened coal in eight hours. There are two shoots for unscreened coal, with picking-tables complete; and storage-bins, capable of holding over 1,500 tons of unscreened and small coal, are in daily use. The hydraulic rams for opening and closing the bin-doors are also the product of the Anchor Company. The smithy is supplied with all the latest appliances for tub-making and for effecting heavy repairs without loss of time. The whole of the screening plant and smithy machinery is driven by water-power. On the whole, the installation at Millerton Colliery is perhaps the most perfect thing of the kind in the Australasian Colonies.

The annual output of coal from 1883 up to the present has been as follows:—

1883	34,997 tons.	1892	198,190 tons.
1884	74,319 "	1893	223,511 "
1885	47,748 "	1894	215,770 "
1886	73,933 "	1895	183,744 "
1887	115,940 "	1896	211,472 "
1888	130,218 "	1897	243,617 "
1889	163,914 "	1898	279,541 "
1890	160,240 "	1899	327,015 "
1891	192,604 "		

Total output from commencement, 2,876,773 tons.

It will be seen that the output has steadily increased. The capacity of the mines is now equal to an output of 1,500 tons in eight hours. The company has paid dividends as under:—

1887	2½ per cent.	1894	6 per cent.
1888	5 "	1895	6 "
1889	6 "	1896	6 "
1890	No dividend.*	1897	6½ "
1891	7½ per cent.	1898	7 "
1892	7½ "	1899	7½ "
1893	7½ "		

* Attributed to strike.

Dividends paid equal 4½ per cent. on capital from commencement of company in 1882.

At one time the company acquired colliers for transporting its own produce; but after a short trial it was found advisable to dispose of them, and to trust for transportation to local steamship companies. The company employs about four hundred and fifty hands in all. Since its formation the company has paid away in—

	£
Wages	869,328
Royalty, railway-haulage, rates and taxes	455,015
Freights to local carriers	620,835
Stores	75,333
New works	221,005
Repairs and sundries	23,214
Making a total of	£2,264,730

The superiority of Westport coal has been proved by tests made at the Woolwich Dockyard, and the escape of H.M.S. "Calliope" from the disaster that befell the other warships during the hurricane at Apia in 1889 was attributable in some measure to the fact that Westport coal enabled her to steer clear of the reefs in the teeth of the hurricane. The extensive improvements carried out at the Port of Westport afford considerable shipping facilities, enabling the company to fulfil large orders in an expeditious manner, and to place superior coal in the market.

The area of coal in the company's leases has been accurately ascertained; explorations have been carried out in a thorough and exhaustive manner; numerous bores have been put down to the coal; the outcrops have been carefully explored, and the area clearly defined. The area of coal known to exist in the company's property will, it is estimated, enable the present output to be maintained during the next century.

TAUPIRI COAL-MINES, HUNTLY, WAIKATO.

The various coal-mines in the Huntly district are now amalgamated, under the title of "The Taupiri Coal-mines (Limited)." They comprise Ralph's Taupiri Colliery, Taupiri Extended Colliery, Taupiri Reserve, and Waikato Mines. The latter colliery is not working at present, but the other three are in full swing.

At Ralph's Mine there are two shafts, the winding one being 190 ft. deep. The present workings are all either under the Waikato River or across it under the opposite side from the shafts. Where sunk through, the coal-seam was of exceptional thickness, being fully 60 ft. Across the Waikato River, on its western side, various bore-holes show a thickness of 30 ft. to 40 ft. The height of coal taken out in the present workings varies according to circumstances, but is not allowed to exceed 20 ft. The pillars are left in permanently for the support of the roof, and are 20 ft. in width, except under the river, where an additional 4 ft. is left. The bords are 14 ft. in width, and are broken away narrow from the levels for greater security to the roof. The winding is done by a small engine on the second motion, and the underground haulage by an engine placed at the top of the dip driven on the direct system—that is, the empty skips, in their running down the engine-plane, unwind the rope by which the full skips are hauled up. The pumping is done by two of Tangye's duplex pumps. The ventilation is natural, aided by the heat of the steam-pipes, by which a current of over 10,000 cubic feet of air per minute is circulated. It is intended to erect shaking screens and new poppet-heads, as the present surface fit-up is rather cramped.

Taupiri Extended Colliery.—The workings at this mine are in two districts, one of these under the narrow strip of land separating the Waikato River from Lake Hakanoa, and the other under that lake. Otherwise they are similar to those in Ralph's mine, and in both boreholes are put up in the roof-coal every 5 yards to insure a thickness of 9 ft. of coal being left as a roof. There are two shafts, 170 ft. and 204 ft. in depth respectively, both lined with cast-iron cylinders, as there is a layer of quicksand above the fireclay, which in most places overlies the coal. A good current of air is circulated by a Waddle fan. The underground haulage is similar to that at Ralph's mine. The winding-engine has couple cylinders 18 in. diameter, and a 10 ft. drum. The pumping is done by two double-action force-pumps. The combined output of these two mines is about 6,000 tons a month.

Taupiri Reserve Mine is worked from a dip drive 40 chains in length, starting near the edge of Kimihia Lake, under which are all the workings at present. Unlike the two other mines, there is no quicksand overhead, and the coalfield is more regular. The coal-seam is a thick one, also separated into two divisions by a band of "clod." The ventilation is natural. The output is about 100 tons daily. This mine is about three miles from Huntly, and is connected with the Government railway by a branch line operated by the company's locomotive.

The class of coal in the three mines is alike—a bright-brown coal —which makes an excellent household fuel, as well as being a good steam-coal. In all, 180 men are employed at the three mines.

The total output from the coal-mines that have been worked in the Huntly district up to the 31st December, 1899, is stated approximately at 1,069,234 tons.

PUMICE-STONE DEPOSITS OF THE MIDDLE PART OF THE NORTH ISLAND.

[From a Report by ALEXANDER McKAY, F.G.S., Government Geologist.]

INTRODUCTORY.

THE North Island of New Zealand is distinguished for the variety and extent of its igneous rocks. These are in great part eruptive and for the most part belong to a Late Tertiary period. Intrusive rocks are found on a large scale in the extreme north of the Auckland District, and there, as diorites, probably belong to a Palæozoic age. More to the south igneous rocks appear in connection with Palæozoic and Old Secondary rocks in the main chain of mountains commencing between East Cape and the Bay of Plenty, and continued south-west to the shores of Cook Strait. Tuffs and solid igneous rocks also appear in connection with the Younger Cretaceous strata of the East Coast of Wellington.

Cape Colville Peninsula, to the east of the Hauraki Gulf, in the Auckland District, presents a vast assemblage and a considerable variety of volcanic rocks, the oldest of which probably made their appearance in Cretaceous times. The youngest, belonging to the Pliocene period, are mostly acidic and are often pumiceous. The volcanic rocks of this region are characterised by the great preponderance of tuffs and fragmental ejecta.

Volcanic rocks supposed of Miocene age cover a considerable area of peninsular Auckland, south of Whangarei, and extend, though not continuously, along the West Coast as far south as Kawhia Harbour, but all these in area and extent fall short of the vast development of volcanic rocks to be met with, covering and obscuring the older sedimentary rocks of the central part of the North Island. The volcanic rocks of the central part of the North Island are in age from Younger Pliocene to Recent: some vents, such as Ngauruhoe and White Island, being active at the present time, while the terrible spasmodic eruption of Tarawera, in June, 1886, showed that the volcanic forces are far from being exhausted, and that mountains apparently extinct may burst forth afresh at any time.

In the matter of the classification of the volcanic rocks of the North Island, Hochstetter, who even now must be regarded the chief authority on this subject, distinguishes but two periods of volcanic activity: First, an old Tertiary period, and second, a younger (Recent) period.* With the older group he associated the volcanic rocks of Cape Colville Peninsula, and the bulk of opinion is still in favour of regarding all the igneous rocks of the Peninsula as Tertiary. Recent investigations tend to show that the younger acid rocks are of Pliocene age, and Park believes them to be contemporaneous with those of the Taupo zone.† The writer believes them to be older, though not of a very different date. The oldest group of volcanic rocks in the Peninsula may also belong to the Cretaceous period.

It has been shown that the earliest emanations of volcanic matter from the Taupo zone were of an acidic character, and largely consisted of pumice, great volumes of which were spread over the sea-bottom adjacent, and to very considerable distances from the points of eruption.

THE ABUNDANCE OF PUMICE.

During a journey through the central part of the North Island, if proceeding from the south by way of the Rangitikei Valley, pumice first begins to attract attention on arriving at the southern part of the Murimotu Plains east of the Wangaehu River. Here pumice-sands or coarser pumice much decayed first appear in the road-cuttings; at first the pumice forms but a thin layer resting on volcanic breccias or the slates and sandstones of the Kaimanawa

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* "New Zealand," by Hochstetter, pp. 66–67.

† James Park, "The Geology and Veins of the Hauraki Goldfields."

Range. As the route of travel is followed north to Tokaanu the amount of pumice increases, but yet is not in such quantity as excites astonishment till Tokaanu is left, and the eastern margin of Lake Taupo is followed to the Township of Taupo at the northern end of the lake. At Tokaanu there is no pumice on the low swampy levels near the settlement or over the delta of the Tongariro River. Passing the Tongariro River the swamps and low flats bordering the lake are covered with blocks of pumice, and pumice fine or coarse as sand and gravel forms the lower hills bordering the lake, or caps the trachyte or rhyolite of which these may be mainly composed.

On reaching the Tauranga River, near its inlet to the lake, the pumice-formation begins to be of importance, and beyond this point to the north-east and east the pumiceous sands and gravels form high table-lands between the different streams falling into the lake. These table-lands terminate in steep cliffs overlooking the lake, or the low flats over which the lake once extended, and the sections that are thus exposed and seen in the like precipices that bound the narrow valleys of the different rivers finding their way from the eastward to the lake show equally well the great depth of pumiceous deposit.

North, north-east, and north-west of Taupo, with the exception of the higher ranges, the whole country is covered with pumice. Generally speaking, this forms terraces along the banks of the rivers or higher flats and table-lands, from which material is supplied to lower levels and a greater distance from the source of the pumice.

To the east of the Waikato, in the Kaingaroa Plain, the pumice-deposit is of great depth, and for many miles is unbroken otherwise than by deep cañon-like gulches that run back some distance into the plain. North of Rotorua and Rotoiti Lakes, the pumice-formation is developed on a grand scale, and forms broken hilly country gradually descending to the shores of the Bay of Plenty. West of Rotorua, the Patetere plateau, in part, the extensive Waitoa Plains, and great part of the Middle Waikato basin show the presence of heavy deposits of pumice, and the volcanic plateau west and north-west of Lake Taupo is equally so characterised. This excessive abounding of pumice is the astonishment of every traveller.

CONCLUSIONS.

The vastness of all these deposits forbids the idea that all this pumice originated within a limited district, extensive even as that of Lake Taupo; and, as the southern end of the Taupo zone does not appear to have been a pumice-producing area, the district between Lake Taupo and the shores of the Bay of Plenty must be considered as having yielded the bulk of the pumice. The volcanic mountains of this district for the most part are formed of rocks of the acidic type, but it is very curious that pumice is rarely found on the slopes or higher parts of these; and this can hardly be explained away by supposing that the light pumice has been removed by gravitation to the lower grounds, seeing that loose pumice covers large areas of the slopes and higher parts of the Kaimanawa Mountains, of the mountains of the east coast within the Hawke's Bay District, and the Urewera Country. In the case of Tauhara, east of the lower end of Lake Taupo, this mountain, though surrounded on all sides by a great and unknown depth of pumice, holds no pumice on its slopes or higher part. Its rocks are formed of trachyte and porphyritic rhyolites, and though it might have been expected to show evidences of having thrown out pumice, as has been said, none are to be found on the mountain at the present time. This is also the case with several other mountains and ranges of volcanic rocks in the district to the north and west.

The conclusion seems to be warranted that the vents chiefly concerned in yielding pumice have been covered up; and of greater age in some cases, but generally younger, the more solid acidic rocks appear through the pumiceous deposits. It is only to the east, to the lower end of Lake Taupo, that solid pumiceous rocks are likely to be found. From what may be seen in the valleys of the Hinemaia and the Waitahanui this is rendered highly probable, but such rocks *in situ* have yet to be discovered. Whatever its source, the quantity of pumice distributed over the middle part of the North Island from Ruapehu to the shores of the Bay of Plenty and the upper end of the Hauraki Gulf, in the Middle and Lower Waikato, and east and west from the sources of the Waipa to the East Coast and Hawke's Bay is enormous, and may well excite curiosity and prompt speculation as to the origin of the same.

KAURI-RESIN.

Although a true resin, this is usually miscalled kauri-gum. It is the solidified turpentine of the kauri, and occurs in great abundance in a fossil condition in the northern part of the Auckland Provincial District, from the North Cape to Middle Waikato, and is dug up alike on the driest fernhills and the deepest swamps. The purest samples are found on the Cape Colville Peninsula. A large quantity is also obtained from the forks of living trees, but is considered of inferior quality, and fetches a lower price. At the present time gum-digging employs nearly or quite 7,000 persons, including Maoris and aliens.

In the fossil state kauri-resin occurs in larger or smaller lumps, from the size of a walnut to that of a man's head. Pieces have been found weighing upwards of 100 lb. When scraped, the best specimens are of a rich brown colour, varying greatly in depth of tint. Sometimes translucent or even transparent specimens are found, occasionally with leaves, seeds, or small insects enclosed. When obtained from swamps the resin is very dark-coloured, or even almost black, and fetches a low price. Waikato resin is the darkest of all. Transparent or semi-transparent specimens fetch very high prices, being used as a substitute for amber in the manufacture of mouthpieces for cigar-holders, pipes, &c. The great bulk is used in the manufacture of oil varnishes, and in all countries where much varnish is made it holds the chief place in the market. It is exported chiefly to England and the United States of North America. In 1860 the export was only 1,046 tons, valued at £9 per ton; in 1899 it amounted to 11,116 tons, valued at £54 13s. 9d. per ton. The following statement, taken from the Customs returns, shows the quantity exported in each year from 1891 to 1899, with the total value, and average per ton:—

Year.	Quantity.	Total Value.	Average per Ton.		
	Tons.	£	£	s.	d.
1891	8,388	437,056	52	2	1
1892	8,705	517,678	59	9	4
1893	8,317	510,775	61	8	3
1894	8,338	404,567	48	10	5
1895	7,425	418,766	56	8	0
1896	7,126	431,323	60	10	7
1897	6,641	398,010	59	18	8
1898	9,905	586,767	59	4	9
1899	11,116	607,919	54	13	9

From the report of the Commissioners appointed in 1898 to inquire into the kauri-gum industry, are taken the following extracts:—

The gumfields north of Auckland City comprise 724,000 acres; those south and east of Auckland 90,000 acres; total, 814,000 acres: and this area consists of 435,000 acres of Crown lands, 166,000 acres of Native lands not yet adjudicated upon by the Native Land Court, and 213,000 acres of private lands held by Natives or Europeans. This total area of 814,000 acres comprises the land known up to the present to be gum-bearing, but may be greatly augmented by new discoveries, for lands in many parts of the district are being worked which some years ago were thought to be non-gum-bearing. There is also this peculiar feature about the gumfields of the north: that in many places two, three, and sometimes four layers of gum have been found, betokening the existence of two or three kauri forests, which on disappearing, or, as is probable, on being destroyed by fire in ages past, left in succession their quota or layer of gum in the ground. On this account it has frequently happened that fields which years ago have been pronounced worked out have been taken up again and profitably reworked, and this same process is going on at present.

In many respects the conditions which obtain with the gumfields of the Auckland District resemble to a remarkable extent those which obtained on the alluvial goldfields of the South Island: the richest deposits or layers in both Otago and Westland were discovered and worked first, and these were found near the surface. Subsequently the lower layers were discovered and worked, and thereafter ground was and is still profitably worked by combination of labour and improved means, which, owing to the small quantity of gold it contained, was declared worthless by experts a few years previously. Exactly so was it with the kauri-gum—the largest pieces, technically called "bold gum," were found on the surface, or barely embedded in the soil. Next, the gum-digger had to search for it 10 in. or 12 in. deep with the spear; then a second and third layer of gum was discovered on fields that were thought to be exhausted, and the large gum-spear, 8 ft. to 12 ft. long, was used to discover, and a hook to bring to the surface, the gum in the swamps, which a few years ago were not known to contain gum.

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The gum industry, though in so many respects a blessing to the Auckland District, has had its abuses, and has in some ways acted detrimentally to that part of the colony; but for this, it must be admitted, those that have had the administration of affairs are to be blamed rather than the industry itself. Under judicious management it should have been made to yield the means requisite for supplying the arterial lines of communication for the whole of the North, and steps should have been taken to counteract, to some extent, the evil effects to the soil which are so apparent to any one traversing our gumfields. The ground has been roughly dug up wherever gum was suspected to exist, and the thin layer of top-soil, generally only a couple of inches thick, was buried a foot or more; deep holes were made, and left unfilled; and even the very roads were dealt with in the same way; but what has led to far greater destruction of the soil was the continual burning off of the tea-tree and fern. The gum-digger does not cut down and clear away the vegetation on the surface of the ground he wishes to work for gum. Doing so would be too much trouble to him, and he therefore has recourse to the simpler method of "putting a match into it," and burning-off what there is of vegetation. If he were to adopt this method, and burn only the particular spot he meant to work, then no fault could be found with him; but invariably the fire is allowed to spread, and hundreds and often thousands of acres are burned, when the object was simply to work a few square yards, or, at the utmost, a few square chains of ground. This wanton burning-off is fearfully detrimental, even ruinous, to the ground, as the fire consumes the rootlets, pulverises the little soil there is, and then ashes and soil are carried away by the wind. There are stretches of gum land everywhere throughout the North where repeated burnings have caused every vestige of soil to disappear, and where there is nothing but the bare white pipeclay left. Not only has the soil been thus destroyed, but in many instances these gum-fires have caused great loss to the settlers—their fences have frequently been destroyed, their homesteads placed in imminent danger, &c. On our journey north we saw the effect of several of these fires; at one place we found four telegraph-poles burned to the ground, and at least eight others badly damaged.

It is true that until lately there never seemed to be much chance of grasses taking root and growing on these gum lands, but there is certainly far less chance of their doing so where the few inches of soil have disappeared altogether. This state of things is the more to be deplored, as experiments carried on during the last four or five years with the view of establishing grasses on poor gum lands have proved fairly successful in several localities. The grass named *Poa brownii* has spread remarkably well in different places, and seems even to drive the small tea-tree off the field. Although it is not a very nourishing grass, and is not one of which stock is particularly fond, it is better than the natural growth on these gum lands—viz., fern and tea-tree, which neither cattle nor sheep will eat. There are, besides the *Poa brownii*, several other grasses, such as rat-tail and buffalo grass, which are making fair progress in some parts of the gumfields.

While on this subject we may also direct attention to the very valuable experiments with gorse carried on by Mr. T. C. Williams, of Wellington, at Pakaraka, under the supervision of his son (Mr. Guy Williams), who kindly showed us over the estate and explained the cultivation and working of the gorse-culture for pasture. A perusal of his evidence attached to this report will no doubt be read with great interest. The procedure, in short, is this: The ground is ploughed, and gorse is sown either broadcast, or in drills or rows 3 ft. apart, leaving a space sufficiently wide to allow the sheep to pass up and down between the rows. When the gorse reaches a certain height, stock is turned in, and the gorse eaten down. The stock is then removed to the next paddock, then to a third and fourth, by which time the first paddock is ready again for pasturing. Experiments of various descriptions have been made by Mr. Williams as to gorse-culture, and the fattening of stock, into the particulars of which it would not be expedient to enter here. Suffice it to say that land which formerly would not feed a sheep to the acre has been made to carry and fatten five and six sheep to the acre when planted with gorse. It has been proved beyond a doubt that our gum lands are capable of being thus cultivated to good purpose, and, as this is a matter of such great importance to the country north of Auckland, your Commissioners would venture to suggest the advisability of Government following up these experiments by setting apart a portion of our poor gum lands as an experimental farm for gorse-pasture only, and by issuing pamphlets from time to time giving the best courses of procedure in order to instruct our settlers how to proceed to put these clay lands to a profitable use. It is in view of the prospect of this future usefulness of the poor gum lands that your Commissioners recommend that prompt steps should be taken to put a stop to the wanton burning-off of the scant vegetation thereon, and a heavy fine should attach to any digger burning more than about a chain square at a time. It would be still better if "burning-off" on gumfields could be prohibited altogether.

Another use to which our gumfields might be put is the planting of marketable and useful trees. On many parts of the gumfields—more especially those which have escaped the ravages from fires—the natural growth (tea-tree and fern) is sufficiently high and thick to make tree-planting rather precarious on account of fires; but no such objection could be urged to planting pipeclay lands, which carry only small stumpy tea-tree and fern of a foot or less in height, or those clay lands from whence the little soil has disappeared by reason of repeated burnings. It is strange, but true, that several of the European and Australian trees will grow where the top soil has disappeared, and where neither fern nor tea-tree seems able to start growing again. Judicious tree-planting, therefore, and more especially the sowing of seeds of suitable grasses, which on many parts of the gumfields have proved a success, would be of immense benefit to the North, and assist in gradually transforming the waste of clay and gum lands into useful country. The cost of any seed-sowing or tree-planting would, of course, be a legitimate charge against the export duty, which your Commissioners recommend further on.

Regarding the permanency of the gumfields, a mass of contradictory opinions was expressed by the various witnesses examined. In many cases the opinions given—that the fields would soon be exhausted—have reference only to the particular part of the gumfield on which the witnesses happened to live, or with which they were familiar: not a few of those best acquainted with our gumfields as a whole consider that the present generation will not see the end of the gum industry in New Zealand, and your Commissioners are strongly of opinion that this will be fully verified. Fresh fields and new layers of gum are being constantly discovered, and immense areas of the known old fields have only been touched here and there, or have practically been only "skimmed over." It is all but certain that systematic and co-operative working of the fields will in years to come replace the present working by individual diggers, and fields now abandoned will be reworked. It has been urged that the gradual decrease of gum export since the time the first Commission reported in 1893 to the present time is a proof positive that the gum is getting scarcer. Such, however, is not the case.*

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The persons engaged in procuring the gum from the soil may be divided into three classes, namely: the diggers proper, who entirely depend for a living upon the gum; the settlers, who, as a rule, only occasionally work on the gumfields to supplement their earnings from the land; and the Maoris, who take to gum-digging only when their crops prove a failure or their stock of provisions gets exhausted. The mode of working is invariably that with spear and spade, and, except in the case of the Austrians, there is no combination of labour, but every man works for himself.

The men known as Austrians on the gumfields are visitors from Lower Austria. They are mostly natives of Dalmatia, but some are from Istria and Croatia, a few also being from the Balkan States—Montenegrins, Bulgarians, &c. They are a hardy, sober, industrious, law-abiding people. This character is given to them with one consent by all the witnesses, whether storekeepers, settlers, or British gum-diggers. In their own country they were mainly agriculturists, engaged at work in the vineyards, olive groves, &c.; but some are fishermen from the islands in the Adriatic. Many of them are very young men, and it is asserted that their desire to escape military service prompted emigration. Very few of them have wives or children in this country, but many of the older men have families in Europe. Those who have already put in part of their time at military service have every now and then to report themselves and get their passports *visèd* by the Austrian Consul in Auckland; but the younger men do not attend at the Consulate for this purpose, and hence there is no check upon the number arriving or leaving the colony. (*Subsequent events have shown that check is possible.*) They speak a Slavonic dialect, not German. The older men are not educated, but the younger men can all read and write, under the excellent system of education that now obtains in Austria. They appear to have strong family affections, much of the money sent home being for the purpose of aiding brothers and other male relatives to come out here also, or for the purpose of helping their families at home. They appear to have been attracted to this country by accounts sent from New Zealand some years ago by two sailors, but still more recently by the return of some lucky Austrian gum-diggers, who took home some £9,000 drawn in one of Tattersall's racing-sweeps. They began to appear on the gumfields in great numbers, and we consider that there are between fifteen hundred and sixteen hundred now in New Zealand, but they are so widely scattered, and their numbers are so constantly changing locally, that it is difficult to give the exact enumeration. It is said that there has been failure of the fruit-crop and general scarcity of late years in Dalmatia, and, if so, it would account for the necessity of many leaving home in search of work; but, as most of the men earned previously, on an average, only 1s. 2d. a day, it is easy to understand that the country in which some of them are gaining from £3 to £5 a week would have sufficient attractions, without even the spur of hunger behind them.

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* This opinion of the Commissioners has been completely verified as correct by the fact that the quantity exported in 1899 (11,116 tons) is the largest yet recorded.

They generally camp together in twenties or thirties, digging in the swamps in summer and on the hills in winter. They work very long hours, often being in the field awaiting the first light of dawn to commence their labour, and ending only when darkness compels them to desist. The evenings and part of the night they spend in scraping the gum. Unlike the British gum-digger, who is generally a solitary worker, the Austrians seldom stray from each other, and upon a rich find of gum being made they all proceed to work it "on the face," as it is technically called—that is, digging up and turning over the whole of the ground, sometimes for many feet in depth. This is, of course, the proper method to pursue if the whole of the gum in the ground is to be removed, but is one of the causes of offence alleged against them by the British digger and the settlers, as the thoroughness of the manner in which the ground is cleared leaves no hope of any gleaning after them. Formerly the digger or settler prodded here and there, dug a hole in a likely looking spot, and then wandered on: there was probably as good gum behind him as before him; but no one could hope to work after the Austrian digger with any prospect of success. The Austrians live frugally at first, and with due regard to their own slender finances; but after being here a little while, and earning money, they soon find that to continue labour in the exhausting manner they work, and for such long hours, a more generous diet is indispensable. Their food on the gumfield costs them generally 10s. to 14s. a week, and consists of tinned meat, potatoes, flour, lard, coffee, butter, &c., averaging quite as much as that of the British digger.

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The trade in kauri-gum practically commenced in 1847, and its price continued from that date up to 1853 to be about £5 per ton. After the year 1853 the fluctuations, both in value and tonnage, of the gum were of an interesting character. . . . . The quantity of gum exported increased from 1,440 tons in 1856 to 8,317 tons in 1893, and since that date has diminished to 6,641 tons in 1897.* The price has, however, steadily risen, till it now stands at the highest figure it has ever attained—that is, at from £60 to £70 for the best samples. Much less gum is now obtained by the individual digger than was formerly the case, some witnesses considering it as fully one-half, others one-third less. The steadily rising price enables a living to be obtained, even with the lesser quantity procured, and this increasing price justifies the idea that the rise in kauri-gum is not only because of the demand caused by the world's larger population, but also on account of the industrial virtues of the gum making it recognised as an indispensable ingredient in the manufacture of good varnish. It is true that there are other competitors with kauri-gum in the market; of these, the principal is that called Manilla, the Zanzibar and other African gums not being produced in sufficient quantity to offer effective rivalry. On this subject we will quote from the report of the former Commission the remarks made by Mr. Ingham Clarke, F.L.S., F.R.G.S., an eminent London varnish-maker. He says:—

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* Subsequently 9,905 tons in 1898 and 11,116 tons in 1899.

"The total annual imports of varnish gums into England, a part of which is re-exported, amount to about 4,000 tons, nearly two-thirds being represented by the kauri-gum of New Zealand. About 400 tons come from our West African colony of Sierra Leone, 400 or 500 tons from the Philippine and adjacent islands (usually known as Manilla gum), and the remainder from various parts of the world. The "gum animè," exported from Zanzibar, is a high-class gum, but very limited in quantity, and is worth, in London, from £200 to £350 per ton. Manilla gums are so like the kauri-gum in appearance that it is almost impossible at sight to distinguish them, the greatest adepts being able to do so by the sense of smell only. The Manilla gums have all some tricky characteristic, which causes trouble to manufacturers even months after the varnishes are made. Some qualities are used in the manufacture of certain grades of ordinary varnishes. Others are unfit for use in the manufacture of oil varnishes. The Damar gums are unsuitable for oil varnishes, being only employed in the manufacture of spirit varnishes, and do not come at all into competition with kauri-gum. Kauri-gum commands a supremacy in the market. There is, however, a shadow to this pleasant picture, for the excessive production, stimulated by the ever-increasing demand, is, without doubt, rapidly exhausting the known sources of supply. If it were not akin to heresy in these days to make such a proposition, one would be inclined to suggest that the New Zealand colonists should place an export tax on gum. No other gum could take its place, from a peculiarity which it possesses (entirely its own) of assimilating with oil more rapidly and at an easier temperature than any other gum. The Manilla gums, it is true, enter largely into competition with kauri; but, as we have already stated, they are treacherous in use, and mostly contain strong acids and other objectionable substances, thereby upsetting all theory and practice, and resulting often in injury to the manufactured article, and subsequent regret to those who use them. Kauri-gum is extensively employed by the leading manufacturers in every country where varnish is made. This universal favour we by no means attribute to the superior results to be obtained by its use, but rather to the fact that it is easier to manipulate—that is, it unites with linseed-oil quicker, and at a lower temperature, than any other gum. It is probable that the essential oil it contains acts in the fusing process as a solvent; hence, less heat being necessary, carbonisation is minimised, and a relatively paler varnish is the product."

The result of the Commission was "an Act to regulate the Kauri-gum Industry," which came into operation on the 1st January, 1899. It provides, amongst other matters, for the division of the North Island into kauri-gum districts; for kauri-gum reserves; two classes of licenses for digging—special and ordinary—and one for buying gum. There are qualifications prescribed as to who may hold licenses. Local authorities keep registers of licenses, stating names of licensees; and buyers, gum-purchase books. Rangers are appointed; and the police aid local authorities in carrying out the provisions of the Act.

SECTION III.

ROTORUA DISTRICT.

[For full details respecting the thermal springs and Sanatorium at Rotorua, see Dr. Ginders's article in the Year-book, 1899, also published as a separate pamphlet. The analysis and action of the mineral waters, properties of various bath springs, with medical information as to cases suitable for treatment, will be found therein.]

ROTORUA TOWN.

ROTORUA TOWN is situated on the southern shores of the lake of that name, at an elevation of 915 ft. above the sea. The climate is bracing, without being too cold. It is accessible by rail from Auckland or the Thames, by coach from Tauranga and Napier, by rail and coach from Wellington *viâ* Hunterville and Toka-anu, or by river-steamer from Wanganui to Pipiriki and on by coach *viâ* Wai-o-uru, Toka-anu, and Taupo. There is a post and telegraph and money-order office. The accommodation at the hotels and boardinghouses is excellent. The Government Sanatorium is a large building standing in its own grounds. It is well fitted with all requirements, and is in charge of a Resident Medical Officer.

BATHS.

The principal baths are at Rotorua. The "Blue Bath" is a hot swimming-bath, fitted up with commodious dressing-rooms, cold showers, and hot douches; its water is of a saline nature. There is also a sulphur and vapour bath in connection with the swimming-bath. The "Priest's Bath" is in the main pavilion on the edge of the lake; its waters are acid and aluminous, and its temperature 98° to 106° Fahr. There are large public baths—two for ladies and two for gentlemen—and private baths for special cases, with dressing-rooms, hot douches, and cold showers. In the same building is the "Rachel Bath," the water of which is alkaline-siliceous, its temperature being 194° Fahr. It consists of large public baths for each sex, with private baths for special cases, and dressing-room accommodation and showers. The new "Ladies' Swimming-bath" is a well-appointed and large bath attached to the pavilion, its water being of the same quality as that of the "Blue Bath." The "Postmaster Bath" is on the edge of the lake, but some distance from the other baths which are in the Sanatorium grounds. It is a hot bath, its waters being acid and supplementary to those of the "Priest's Bath" in their indications. It consists of six large public baths—three for men and three for women—with dressing- and waiting-rooms, cold showers, and hot douches. In addition to the baths mentioned, and not far from them, are such well-known ones as "Cameron's," "Painkiller," "Coffee-pot," "Stonewall Jackson," "Corlett's," "Saddler's," "The Gemini," and "Vaux" baths. All these are curative, and are not yet closed in. At Whaka-rewarewa, about 2 miles from the Sanatorium, the two principal baths are the "Oil Bath" and the "Spout Bath," both of which are hot and exceedingly good, being quite as efficient medicinally as any of the others.

The Sanatorium gardens and grounds at Rotorua are nicely laid out and planted, the native shrubs being preserved and tastefully trimmed so as to give shade and resting-places.

OBJECTS OF INTEREST.

Visitors to Rotorua can within a day make any of the following excursions by way of varying the usual monotony of sleeping, eating, and bathing, and having something else to talk of and listen to than "symptoms":—

Ohine-mutu and Whaka-rewarewa.

In the morning walk or ride to Ohine-mutu, the old Native village, where there are many hot springs and Natives, the Anglican Mission Church, and the Native meeting-house. On the way to Ohine-mutu, going by way of the lake, the Roman Catholic Church is passed. In the Native Pa there are many boiling pools and baths, and a considerable Maori population, whose ways and manner of life form an interesting study. From Pukeroa Hill, which is a recreation reserve overlooking Ohine-mutu, several excellent views of the old and new townships of Rotorua may be obtained. In the afternoon Whaka-rewarewa may be visited, where there are geysers and another Native village and some healing-baths. At both Ohine-mutu and Whaka-rewarewa the habits of the Natives and their method of cooking by steam form amusing subjects of observation. Coaches run between Rotorua and Whaka-rewarewa every forty-five minutes.

Hamurana and Tikitere.

Another enjoyable excursion for the day is to take to the water, and in one of the steam-launches visit the cold springs of Hamurana, situate on the northern shores of Lake Rotorua, then across to the Ngae on the eastern shore, where by arrangement one can be met by a coach or buggy and driven to Tikitere. A stay *en route* may be made at the Island of Mokoia. From Tikitere the drive back to Rotorua is about 12 miles. Instead of doing this in one day and merely skimming over it, several enjoyable trips may be made out of it. The visitor may steam over to Hamurana, where he can get canoes and paddle up the river to the springs, then have lunch on the beach or river-side, eat as many cherries as he may, if in season, and generally enjoy the scenery, returning to Rotorua by launch in time for dinner; or he may land on Mokoia, famed for its scenery and its story of Hinemoa and Tu-tane-kai, and spend a pleasant day

Martin, Photo.

Rotorua Township.

there, returning in the afternoon. Another day's outing may be had by driving to Tikitere the whole way from Rotorua, seeing its wonders, horrors, and beauties; then visiting the Blue Lake near there, and returning by road in the afternoon. The last-mentioned trip is a favourite one, for the route is by the new road from Rotorua to the Rotoiti Lakes, Tikitere being reached in about two hours and a half. To quote from a writer in Bond's Almanac, Tikitere is "in form a valley filled with solfataras, mud-volcanoes, and boiling springs in a condition of fierce activity. In the centre are two boiling lakes, and the narrow strip of ground separating them is known as the 'Gates of Hades.' There are many interesting narrows of a like kind, and on the south side there is a valuable healing-spring." The hydro-thermal action is so great that the ground all round is in a continual tremble, making one half inclined to leave such dismal horrors far behind him. But this feeling soon wears off, and invalids, even ladies, live here for weeks in order to benefit by the valuable mud and other baths, which have effected so many cures. About half a mile north of the springs immense quantities of sulphur are dug by the Natives, and sent to Auckland for commercial purposes. Close by is the Blue Lake before referred to—a lovely piece of scenery—whilst a short climb up a small hill will reward the tourist by a view of Lake Rotoiti and surrounding country. The surrounding hills are still covered with erupted mud, now dry, but furrowed into many sharp crevices and gullies.

Te Wairoa and Tarawera.

An interesting excursion may be made to the site of the old village of Wairoa, which was destroyed by the eruption of Mount Tarawera in June, 1886. Arrangements can be made for crossing Lake Tarawera in boats, and ascending the mountain, when a good idea can be obtained of the immense forces that were at work on that occasion, and the awful experiences of those Europeans and Natives in its vicinity on that memorable night. Wairoa, nine miles from Rotorua, can only be reached on horseback or on foot, the road not having been reopened for wheel traffic since its destruction by the eruption. It is probable, however, now that the pumice dust has arrived at a state of rest, that the road will be again opened for wheel traffic. To do this trip in one day an early start must be made. Leaving Rotorua the traveller soon meets with the effect of the eruption—dry mud everywhere. The course of the old road is now a deep ravine formed by the water, which the mud prevents from soaking into the ground. A dreary piece of road follows, and ends at Tikitapu, which, though sadly disfigured, is still a beautiful piece of bush. Next comes Tikitapu Lake, 1,435 ft. above sea-level. Here Nature has done her best to cover her ugly work; hill and bush showing little of the mud that maimed the giant trees and crushed the scrub and fern. But, alas! the colour of the lake, once so lovely, is gone. Its milky water is, however, not unpleasant to the eye nor yet to the palate, and mixes fairly well with good whisky. Old travellers will miss the former exquisite beauty of the lake, but a ride along its shores on a pleasant day is a treat even now. Separated by a narrow neck of land from Tikitapu is Lake Rotokakahi, the next place of interest, 1,350 ft. above sea-level, a sombre-looking piece of water. Being near to Wairoa, it suffered severely from the eruption. A Native settlement on its southern shore was abandoned after the eruption. Here begins the Wairoa Creek, the outlet of the Rotokakahi Lake, and leading to Wairoa. One now sees the remains of bridges destroyed, heavy deposits of mud, and then Wairoa—truly a scene of desolation. Here are the ruins of an old mill, the tops of Native whares, remains of hotels and houses. The only surviving portions of a once pretty village are the trees, which seem to thrive in spite of their desolate surroundings. Fruit abounds in season. Tarawera Lake, 1,032 ft. above sea-level, is most melancholy in appearance. A sail across this lake is a welcome change from the saddle, the boats being good. The traveller is landed at the foot of the Tarawera Mountain. Peak Ruawahia, being 3,770 ft. above sea-level, compels an awful and painful interest. The lower part is easy of ascent, and the upper not difficult for active men; visitors may without much fatigue obtain a comprehensive view of this field of destruction. No verbal description can possibly convey an adequate idea of this scene of devastation and desolation. After lunch it is necessary to start on the journey home, in order to get there in time for dinner.

Wai-o-tapu Valley.

This valley is about 22 miles from Rotorua on the road to Galatea. The springs there are many, and calmly beautiful compared with Tikitere.

Leaving Rotorua, Whakarewarewa is soon reached, and, once through the Hemo Gorge, the deep blue of the Puarenga is seen. The road is monotonous enough, through a valley which apparently at one time was a totara forest, dead logs of that timber being strewn all over the country. The land belongs to the Natives at present. A ride of ten miles brings you to Pa-karaka, a Native settlement, from which a good view can be obtained of Mount Tarawera. Here a track leads to an old pa and an old Constabulary barrack at Kaiteriria, beautifully situated on the shore of Lake Rotokakahi, but abandoned by Natives after the eruption. Earthquake Flat—so called from the numerous cracks which are the result of earthquakes—is 12½ miles.

Following the old road to Rotomahana, the site of the Pink and White Terraces, the top of the hill is soon reached, and looking towards the north-east Tarawera, with its enormous chasm and desolation, lies before you. Eastward and southward stands Mount Kakaramea as a sentinel at the entrance of the strange region, far to the east the Kaingaroa Plains, and beyond the Urewera (Tuhoe) country. Descending to the main road, a pleasing surprise awaits the visitor, for Mount Kakaramea stands in front—a most striking object, its sides covered with many-coloured earths, with puffs of white steam issuing here and there. Beautifully contrasting is the cool colour of Lake Ngahewa lying at its base. Soon the hotel at Wai-o-tapu is reached, where the traveller can lunch and visit the sights, and return to Rotorua. If, however, he has time, he had better stay the night and thoroughly explore the district.

Rotowhero–Wai-rakei Road.

The road from the Galatea–Wai-o-tapu–Rotorua junction at Rotowhero to Wai-rakei is passable for any kind of wheel traffic. It is newly formed, passing mostly through pumice country, and is dry and hard. The latter portion from the Waikato River to Wai-rakei is completed, but as yet there is no bridge crossing the Waikato River.

This road is an interesting one for sightseers. From Wai-o-tapu right along to the Waikato River, hot steam-holes and springs are to be found on the way. Then the mighty Waikato River rolls past. At Ohaki there is a spring, which for size and beauty is remarkable, besides other smaller ones. A divergence should be made to see the Aratiatia Rapids. On the drive to Wai-rakei a continuous view of Nga-uruhoe and Ruapehu, with the Te Mari Crater steaming its straight column into the sky, is obtained. From the saddle above Atiahaka there is a grand view of Lake Taupo and the mountains on a clear day.

From Wai-rakei the tourist should obtain horses and visit Orakei-korako, about 12 miles away. This spot, after Wai-rakei, is really the finest in the district; the Alum Cave alone is worth while going a long way to see.

The following are the sights on the drive from Rotorua to Wai-rakei: Wai-o-tapu Springs, 2 miles from junction, or 19 miles from Rotorua; Waikato River, 13 miles from junction; Ohaki Springs, 2½ miles from river; Orakei-korako Springs and Alum Caves, 12 miles by track from river; Aratiatia Rapids, 17½ miles from river, or 3 miles from Wai-rakei; Orakei-korako, 12 miles by track from Wai-rakei; Nga-uruhoe–Ruapehu and Tongariro Range, most of the way from Waikato to Wai-rakei; Lake Taupo and Mountains, from Atiahaka Saddle; Wai-rakei Geysers, 1 mile from Wai-rakei, or 17½ miles from river.

The country is all open, except a little bush on the right hand from the junction to the river, above the Paeroa Settlement. On the north side of the Waikato River it is well watered, but on the south along the road only two small streams are passed. Generally the land is poor, mostly flat, occupied by Maoris here and there. The largest pa is at Ohaki, sometimes as many as a hundred Maoris being congregated there; the majority of the pas, however, range from thirty to fifty souls. Altogether there are about ten kaingas on the road from the Rotowhero Lake to Wai-rakei. At Wai-o-tapu there is a hotel, and at Wai-rakei a comfortable hostelry.

A good way of making the trip is for travellers to come to W coach from Rotorua, see the sights there, and stay the night. N they drive on to the river and Ohaki, then on to Broadlands Ba and thence to Wairakei, staying the second night there, and se the sights in the Geyser Valley, then to Orakei-korako another d Orakei-korako can also be reached on horseback from Atiamur from Earthquake Flat, both distant about 20 miles, the latte following the telegraph-line; or on horseback from Ohaki, dist 22 miles, thus affording a choice of four routes. The Wairak Atiamuri route is the best, and travellers will find it very int esting; to those fond of shooting there are pheasants, ducks, a pigeons to afford sport.

The Lakes: Rotoiti, Rotoehu, Rotoma.

An excursion lasting from one day to a week, or even mor according to the inclination of the traveller, can be made to th lakes from Rotorua. The tourist goes by launch to Tapuae-haru a Native village at the eastern end of Lake Rotoiti, wher arrangements can be made for staying under canvas for any lengt of time, and from whence excursions may be made to the othe lakes, and the Hot Spring of Waitangi, between Lakes Rotoehu an Rotoma. The scenery along the shores of these lakes is beyond description, the only way to get any idea of it being to go and se it for one's-self. A road has recently been constructed from Rotorua past Tikitere, and along the shores of Rotoiti to Tapuae-haruru. It leads through the bush, following the course of the old Native track along the shores of Lake Rotoehu, past cherry groves and hot springs, to Lake Rotoma, so that the beauties of this district may be visited either by water or road. By a horse-track through the bush, leaving Lake Rotoiti at Te Ruato, a Native village, Lake Okataina can be reached in an hour's time. On Lake Rotorua pleasure-boats can be obtained, sailing or rowing; also tents and all necessary gear for camping.

ROTORUA TO TIRAU AND OKOROIRE.

If the visitor is tired of steam-holes, porridge-pots, geysers, and sulphur, and yearns to get the sulphury fumes from his nostrils and the uncanny sights from his mind, a drive to Tirau or Okoroire is the one thing needful to restore his faculties to their normal condition. Certainly at Okoroire one meets with hot springs and other thermal action, but they are small compared to those of Rotorua.

Leaving Rotorua, the coach travels on a good road along the western or prettiest side of Rotorua Lake, passing on the left Ngongo-taha Mountain, from whose summit a grand view may be obtained of the Bay of Plenty, including Mayor Island, Tauranga Harbour, Motiti, White Island, and Cape Runaway, together with other objects of interest and note.

At Tarukenga there is a plantation of 14 acres under Government control, where various trees are planted and grasses grown

Roto-ehu.

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Roto-ehu.

for the purpose of ascertaining which are most suitable for the district. Beyond this point lies Paradise Valley, a pretty secluded piece of bush scenery dear to picnic parties, not visible from the road or rail.

Tarukenga is 9 miles from Rotorua, its chief attractions being a Native pa on the high ground. Here the visitor by rail catches the first glimpse of the lakes, looking from an altitude of 1,000 ft. or 2,000 ft. above sea-level.

In the bush which is entered just beyond, nothing is more enjoyable on a fine day than a drive through its ever-changing hues of green, brown, and yellow. The prevailing trees are rimu, tawa, rata, and some totara and hinau, the mountain rimu especially recommending itself for building purposes.

Getting clear of the bush, the traveller soon comes in sight of cultivation, and reaches the Thames Valley, in which are situated Tirau and Okoroire. On the right is seen Matamata, the Te Aroha Ranges, and the Kaimai, on the left the valley of the Waikato, with the hills beyond. Still continuing the journey, the Wai-makariri River is crossed, where there is a trout-hatchery established. Two miles further on the hotel is reached and the journey for the day is completed.

A few miles from Tirau, in the Matamata direction, is the Okoroire Sanatorium and health resort, where many tourists break their journey to or from Auckland. It has many features of interest similar to Rotorua, but on a much smaller scale, although each place has some particular charm all its own. The hotel is built on rising ground on the banks of the Waihou River, and the building commands a wide range of landscape.

Spacious and convenient bath-houses have been erected, connected by a covered way with the river, where visitors may enjoy the luxury of a cold plunge after a warm bath. In their respective seasons, shooting and fishing engage the attention of the tourist, and good bags in both branches of sport are generally obtained. The railway-station is about 5 miles from the Sanatorium, whither coaches convey visitors free of charge to the hotel door.

TE AROHA THERMAL SPRINGS.

Te Aroha is one of the most favourite health resorts in New Zealand. It is very prettily situated on the Waihou (Thames) River, thirty-three miles southward from the Thames, and within easy reach of Auckland by rail. The township takes its name from the adjoining mountain, which rises to a height of over 3,000 ft., and contains numerous valleys and gullies filled with a great variety of tree-ferns and other forms of luxuriant vegetation. The climate is equable, dry, and salubrious. The accommodation for visitors is very good, and the natural attractiveness of the place has been largely added to by improvements carried out by the local authorities.

There are eighteen springs in the township under the control of a Domain Board; fifteen of the springs are hot or tepid. Seven large bath-houses have been comfortably fitted up; there is also a large building, containing a number of private single baths, and a summer-house, with fountain, providing the mineral water for internal use. The waters are, with the exception of the sulphur springs, saline and feebly alkaline, and strongly charged with carbonic-acid gas, which is constantly escaping from the springs in large quantities, rendering them effervescent and pleasant. These springs are very similar to those of Vichy (France), Ems (Germany), and Bilin (near Teplitz, Bohemia), and are quite equal to them in strength. Potash exists in all these waters, but only in very small quantity. Baths Nos. 1 to 15 inclusive, and No. 18, are colourless, with the exceptions of Nos. 4, 13, and 14, which are pale-yellow. No. 16 is turbid, owing to the presence of precipitated sulphur.

Bath No. 1, pleasantly situated up the hill, is set apart for ladies, and is much used.

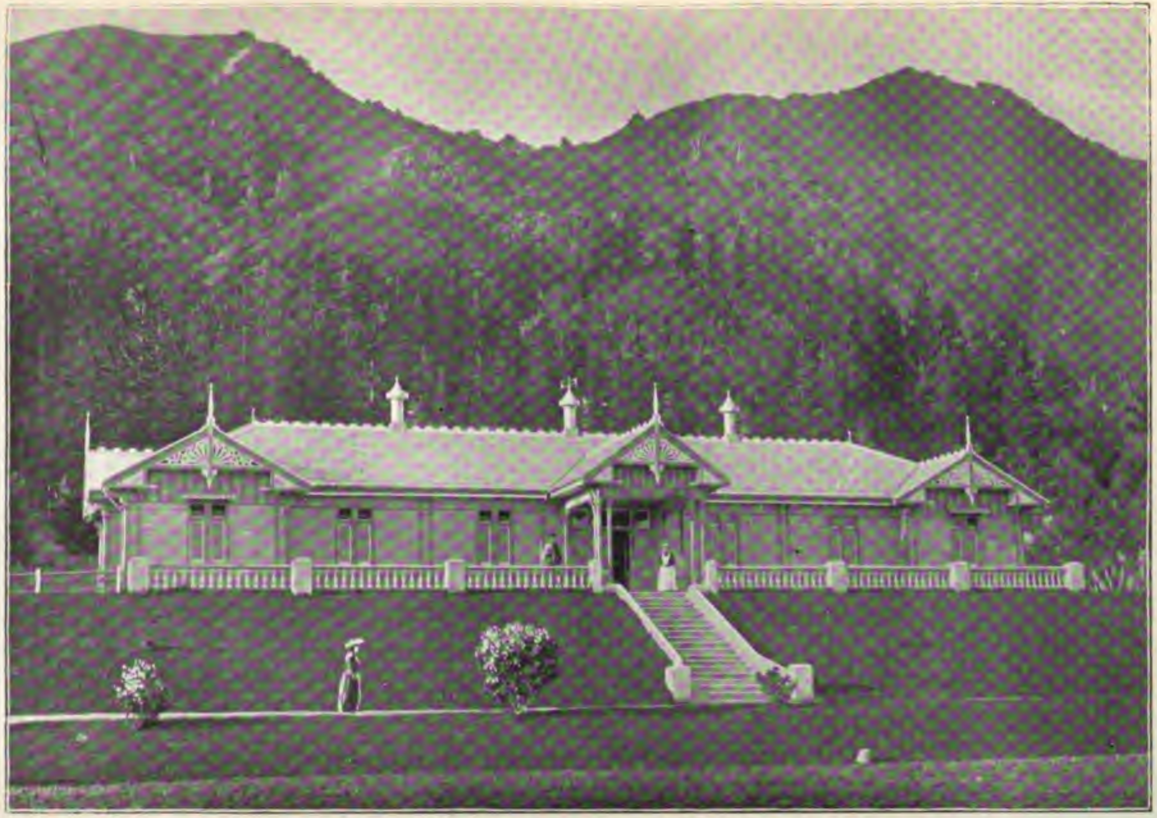
Bath No. 2 is of large size, with waiting- and dressing-rooms attached. A short distance from it is a reservoir of hot water, containing 20,000 gallons. Three-fourths of the water from the springs supplying it is at a temperature of 90°, and the temperature of the rest from certain springs ranges up to 119°.

No. 3 bath-house is divided into private rooms, with a bath in each, fitted with hot- and cold-water valves to regulate the temperature as desired, and each provided with a shower.

Nos. 4, 5, and 6 are extensively patronised, and good bathing-houses are erected over the springs.

No. 15 spring is largely used for drinking, and, according to Dr. Alfred Wright, the late physician to the Thermal Springs Domain (from whose handbook on Te Aroha some of the particulars here given have been taken), its water is a valuable adjunct to the treatment of certain forms of dyspepsia and kidney affections. No. 8 is also a drinking spring, but of lower temperature. No. 16 (cold) has little overflow. Sulphur is found in small quantities in the surrounding clay, and there is emitted a strong sulphurretted-hydrogen gas. No. 17, also a cold spring, is used for application in cases of eye affections. No. 18 is a cold soda-water spring.

In order to meet the demand which has sprung up for a potable supply of Te Aroha mineral water for drinking elsewhere than at the fountain, the Government permitted the granting of sole rights for a term of years to a company formed for the purpose of working and distributing the mineral waters, and the Te Aroha Soda and Mineral Water Company (Limited) had a large exhibit of these waters in the New Zealand Court at the Melbourne Centennial Exhibition of 1888.



The Pavilion, Te Aroha.

ANALYSIS OF EIGHTEEN MINERAL WATERS FROM TE AROHA.—No. 4423.

Alkaline Waters 1 to 15, 17, and 18.

No.	Temp. in Deg. Fahr.	Chloride of Sodium.	Chloride of Potassium.	Sulphate of Soda.	Carbonate of Lime.	Carbonate of Magnesia.	Bicarbonate of Soda.	Silica.	Total Grains per Gallon.
1	102	60·25	1·72	38·32	10·77	6·86	461·56	7·56	587·04
2	112	60·45	1·90	32·67	7·12	4·21	426·29	7·12	539·76
3	112	60·51	with the sodium chloride	32·82	7·24	4·20	429·19	7·21	541·17
4	92	34·24		19·16	4·62	2·14	246·49	5·17	311·82
5	100	68·77		36·92	6·91	3·15	476·58	6·10	598·43
6	104	66·23		35·14	7·12	2·99	499·75	7·14	618·37
7	86	67·13		34·04	7·46	4·34	444·20	7·01	564·18
8	109	66·14	1·96	32·91	7·47	4·21	451·97	8·60	573·26
9	112	41·29	..	22·16	4·94	2·61	301·17	6·44	378·61
10	96	35·24	..	19·19	4·67	2·31	276·19	6·00	343·60
11	88	34·69	..	20·12	5·11	2·56	261·44	6·11	330·03
12	88	41·66	..	22·96	5·12	2·99	300·97	7·11	380·81
13	120	40·67	..	21·86	6·11	3·13	301·64	6·86	380·27
14	122	42·61	..	23·16	7·14	3·49	321·64	6·66	404·70
15	139	43·11	..	22·16	6·91	3·61	331·76	7·05	414·60
17	..	2·71	..	3·92	0·64	0·27	9·36	4·21	21·11
18	..	16·12	..	8·16	1·97	1·01	131·72	13·14	172·12

Nos. 1, 2, 8, 9, 10, 11, 12, 13, 14, 15, and 18 contain traces of alumina and iron-oxide.

Nos. 3, 4, 5, 6, and 7 contain traces of alumina, iron-oxide, and potassium.

No. 17 contains 1·4 gr. of sulphuretted hydrogen.

Important additions and improvements have been carried out. A bath-house, 98 ft. long by 28 ft., with a centre corridor 8 ft. wide, laid with tile paving, and twenty-three rooms off it, nineteen of which are furnished with the best porcelain baths, has been completed, and was opened on the 24th May, 1898, by the Hon. A. J. Cadman, then Minister for Railways and Mines. To provide proper drainage and carry off all the water from the baths a pipe has been laid on from the Waihou River. Two concrete reservoirs, containing respectively 6,000 gallons and 20,000 gallons of hot water, have been laid down, and both are connected with pipes and valves. A large concrete swimming-bath, 40 ft. by 20 ft., and 3 ft. 9 in. to 5 ft. in depth, has been made at a convenient point to receive the overflows from these reservoirs. These and other additions were carried out at a cost of £3,860. After the completion of the railway to the Thames there was a large influx of visitors, and this caused a heavy drain on the supply of hot mineral water available for the baths. In order to obviate any possibility of a shortage, the Board decided to drive a prospecting tunnel, and the Government granted a subsidy of £150 towards this work. There is now every indication of an ample supply being available, several good springs having been tapped in transit, some registering 120°. This additional supply will enable the Board to fill the above hot-water swimming-bath, which has not been used because there was not enough hot water from overflows. A lawn-tennis ground has been provided, and a bowling-green will probably be added as soon as the funds of the Board permit. The growing popularity of Te Aroha may be gathered from the amounts received for baths during the past fourteen years :—

	£		£
1885	387	1892	427
1886	539	1893	466
1887	503	1894	406
1888	487	1895	421
1889	463	1896	603
1890	366	1897	729
1891	411	1898	769

Te Aroha is 115 miles by rail from Auckland, thirteen miles from Paeroa, and thirty-three miles from the Thames. Coaches leave Paeroa frequently for the important goldfields of Karangahake, Waihi, and Waitekauri, so that these districts are also placed within easy reach of the healing waters. It is customary for many of the miners and residents on these goldfields to go to Te Aroha on Saturday and return on Monday morning; cheap return fares are provided by the Railway Department with the view of encouraging this branch of the passenger traffic. It may therefore be surmised that the increase in the Domain Board's revenue which has taken place since the railway was opened to Paeroa and the Thames will go on steadily augmenting year by year.

HANMER THERMAL SPRINGS.

[From a paper by R. Bell, with analysis of waters (Hector) and directions for use (Dr. Little).]

Among the many pleasure and health resorts in the Middle Island of New Zealand the Hanmer Thermal Springs District is justly very popular. As a health-recruiting ground, pure and simple, it undoubtedly holds the first place. There are various reasons for this preference for Hanmer. It is situated beyond the Leslie Hills in the Nelson Province, nearly a hundred miles from the hurry and bustle of a large city, and twenty-four miles from a railway-station. The healing natural waters are, of course, the great attraction. Their fame has gone abroad, and year by year brings an ever-increasing number of visitors. The climate must also be credited with its fair share of the attractiveness of the district. Although situated in latitude 42° 30′ S., the heat, even in midsummer, is not oppressive. The height of the springs above the sea-level, 1,220 ft., and the distance from the coast, thirty-two miles, insures a dry heat during the day, with cool mornings and evenings. The air is bracing and salubrious, and allows feats of walking and hill-climbing to be performed with less fatigue than on the lower levels and in the more humid atmosphere near the coast.

Besides attracting the physically weak and the mere seeker after pleasure, Hanmer is yearly growing in favour with the fagged brain-worker, the nerve-worn man of affairs, and the mechanic who "needs a spell." To them Hanmer is a veritable Elysium, where business is not thought of. The world with its distracting cares and life-shortening ways is shut out.

JOURNEY TO HANMER.

To get to Hanmer the train is taken from Christchurch to Culverden, the northern terminus at present of the Hurunui–Bluff railway system, a distance of sixty-nine miles. Leaving Christchurch at 7.35 a.m., Culverden is reached at 12.10 p.m. The railway runs through some of the most fertile country in the Middle Island. Along the route are the Townships of Kaiapoi, Rangiora, Amberley, and Waikari.

Culverden is the centre of the fine pastoral country which extends to the neighbourhood of Blenheim. At its yards the largest sheep sale in New Zealand took place in March of 1898, when 250,000 sheep were brought under the hammer. Having lunched here, the passenger transfers himself and baggage to the coach, and the remaining portion of the journey is performed in three hours and a half. The coach route runs through the picturesque valley of the Waiau. The road winds in and out among the hills until crossing the river by a fine iron bridge the plains are unexpectedly reached. This level plateau, which stands at an altitude of 1,220 ft., is about ten miles long by four miles broad, and is surrounded on all sides by mountains, some of which rise over 5,000 ft. high. About the middle of the plains are the hot springs. These are of an alkaline and saline character, with a strong escape of sulphuretted hydrogen, and they possess undoubted curative properties for certain diseases.

ACCOMMODATION, ETC., AT THE SPRINGS.

The springs are situated in an area of 13 acres, enclosed by live fences and trees, and laid out in pleasant walks and lawns, bordered by flowers, all neatly kept. A croquet-lawn, tennis court, and bowling-green have also been laid down. The hotel-accommodation for visitors is ample. The Government Sanatorium contains twenty-two bedrooms, two dining-rooms, smoking-rooms, drawing-room, sitting-room, doctor's consulting-room, &c. It is capable of accommodating about thirty persons, viz.: fourteen in the first-class compartments and sixteen in the second-class rooms. The Sanatorium is chiefly used by patients whose complaints require them to live near the baths.

"The Lodge" is a commodious two-story house within a few chains of the bathing-grounds. The Jollie's Pass Hotel (licensed) is situated two miles and a half from the baths, and was originally built by the Government as an accommodation-house for travellers crossing the Pass, the great highway between Nelson and Canterbury. Mrs. Lahmert has a Temperance Hotel near the springs, and there are several other boarding-houses.

During the 1899–1900 season 2,046 people visited the springs, taking 15,891 baths.

The bath-houses contain in all twenty-two private baths, with massage-rooms and Turkish baths supplied with hot and cold mineral-water. The water is brought in pipes from the adjacent springs. The temperature ranges from 86° to 97° Fahr., and may be increased at will to 114°. Besides the private baths, there are a ladies' swimming-pool and a gentlemen's swimming-pool, both surrounded by high iron fences and covered by awnings. The average depth is 5 ft. The temperature of the pools is 85° Fahr., and is so comfortable that, once in, the bather hardly cares to come out again. The charge for the private baths is 1s. each or 8s. for twelve, while for the pool 6d. a bath is the price. Situated in the grounds is a pump-room used by patients drinking the waters which give relief in stomach, liver, and kidney troubles. The water is warm, and contains chloride of sodium and sulphurous acid, and many testify to its beneficial effect.

An arrangement of pipes enables the gases to be inhaled by the patient, and this, like the drinking of the waters, gives relief in cases of asthma and bronchial affections. Sufferers from these complaints find that the clear atmosphere of this upland valley has a wonderfully curative effect.

A comfortable reading-room has been provided in connection with the baths, on the tables of which may be found works descriptive of the scenery, resources, and history of New Zealand, also a few of the best monthlies, &c.

Natural gas is used to light and heat the baths, and to light, heat, and cook with at, the sanatorium.

A post- and telegraph-office supplies facilities for communicating with the outside world.

Masseuse Available.

In premises fitted up for her use, Miss Edith Cook, certificated masseuse, practises her art. She has great experience, and those who have been under her hands testify to her skill as a manipulator. In fact, it has come to be recognised that the bathing and the massage treatment go hand in hand towards affecting cures in cases of muscular ailments.

Medical Attendance Procurable.

Dr. Little, of Culverden, visits the springs once a week during the season, and his services are at the disposal of the visitors at moderate fees. If urgently required he can be communicated with by telephone at any moment.

TOURIST SEASON, ETC.

The tourist season extends from the 1st November to the 1st May, and during those months coaches from Culverden to Hanmer run daily up and down. During the rest of the year coaches only run on Tuesday and Saturday from Culverden, and from Hanmer on Monday and Thursday. The baths are open throughout the year; but the massage treatment can only be obtained during the summer months. The Government Sanatorium and the hotels and boarding-houses, of course, provide accommodation all the year round.

Apart from the cost of getting there—the railway issue through return first-class tickets from Christchurch for £1 10s., and from Dunedin, £4 2s. 6d.—Hanmer, unlike many other pleasure resorts, is not an expensive place to stay at. There are no "extras," in the shape of boating and driving excursions, as in the cold lakes district, and no guide-fees, as in the alpine district. The only way one can make extra expense is to indulge in a superfluity of baths, and that is hardly likely.

To those capable of Alpine work there are Mount Perceval (5,335 ft.) and Mount Captain (6,600 ft.). On a clear day, from either of these peaks, the Port Hills, Lake Ellesmere, and the long sweep of the Canterbury Plains to the ocean, can be seen. Jollie's Pass to the Saddle affords a fair morning's walk, so also does Jack's Pass, and there are many other short excursions which may be made by those whom the baths have restored to vigour.

There is good fishing in the Clarence, the Waiau, the Hanmer, and their tributary streams; while for dog and gun there is such game as hares, rabbits, wild ducks, and swamp-hens.

The analysis of water taken from No. 1 Spring at Hanmer Plains, made at the Colonial Museum in 1891, gave these results:—

Chloride of sodium	62·09
Chloride of potassium	0·15
Chloride of lithium	Trace
Iodide of magnesium	Trace
Carbonate of lime	0·55
Carbonate of magnesia	1·77
Carbonate of iron	0·05
Sulphate of soda	7·48
Carbonate of soda	2·66
Phosphate of alumina	Trace
Silica	2·63
Total grains per gallon	77·38
Gas—Sulphuretted hydrogen	2·19

An analysis made ten years ago, prior to the earthquake which occurred in 1888, by Professor Bickerton, of Christchurch, is interesting from the fact that it includes an examination of the sediment and organic matter contained in the water. The sample was taken from Spring No. 8 before it was incorporated with No. 1. It is as follows :—

Sediment—Silica and free sulphur ...		1·400
Nitrogen as free ammonia	0·092	
" as albuminoid ammonia ...	0·048	
" as nitric acid	0·047	
Total nitrogen		0·187
Sulphuretted hydrogen, free		3·430
Sulphate of lime	9·940	
" potash	1·960	
" soda	0·400	
Bicarbonate "	7·770	
Chloride "	56·230	
Bicarbonate of magnesia	0·640	
Total fixed matter		76·940
Total grains per gallon ...		81·957

The total amounts of fixed salts in the two analyses correspond very closely. The sulphates and carbonates in either case are so small that the fact of their varying in the two analyses is a matter of no importance. The fact of the discovery of traces of iodine and lithium in the recent analysis is interesting.

Directions for using the Baths at Hanmer Sanatorium

[By Charles T. W. Little, M.B., Ch.B., Visiting Medical Officer.]

The temperature of the Hanmer Baths can be regulated from cold up to 114° Fahr. Patients are cautioned against using the baths at first at too high a temperature, and against remaining too long in them. The caretaker in charge will be glad to give information on this point. A cold shower is provided with each bath. Invalids and those unaccustomed to the shower must use it with caution. After leaving the bath, patients should cool gradually, and be careful to avoid exposure to cold.

The water of the springs is laxative and diuretic, and may at first nauseate. It should be drunk in moderation, not more than one or two glasses daily for a commencement.

During their stay at Hanmer, visitors are recommended to freely take exercise in proportion to their strength. The Sanatorium affords facilities for this. The walk from the accommodation-houses to the springs will benefit those in fair health. Those suffering from feeble circulation, and those convalescent from acute diseases, must be specially careful with regard to the temperature and the duration of their bath, and should first ask information from the caretaker.

Patients suffering from bronchial catarrh will find inhalation of the steam beneficial, but must carefully avoid cold after leaving the bath. For local affections of a chronic rheumatic nature, &c.,

Martin, Photo.

Parikino Reach, Wanganui River.

patients will find the hot douche useful, but must persist in its use. Massage both during and after the bath is here very useful.

Experience has shown that the benefit derived in skin affections varies much with individual cases. Dry and scaly skin affections generally benefit by prolonged immersion. Irritable and moist skin affections, on the other hand, benefit more by a short immersion. Should such affections be aggravated by the treatment, the baths should be discontinued for a time at least.

The benefit derived by gouty patients has been found to vary with the case. Patients suffering from derangements of the alimentary system (constipation, torpid liver, &c.), asthma, whooping-cough, nervous debility, and insomnia have testified to receiving benefit from a stay at Hanmer.

Giddiness, bleeding from the nose, chilliness, nervous depression, increased irritability of the skin, are indications either that the baths do not suit, or that they have been too freely used and should be discontinued for a day or two at least. Visitors to the Sanatorium finding no appreciable benefit from the first few baths have often discontinued them altogether. Provided that the treatment is not aggravating the complaint, such action does not give the springs a fair trial. In chronic affections a long course of treatment is often required, and the immediate benefit is not seen.

UP THE WANGANUI RIVER TO TOKAANU.

THE Town of Wanganui is situated on the right bank of the river of the same name, at a distance of four miles from the sea. It was founded in 1840 by the New Zealand Company, and now contains a population of nearly seven thousand persons. With the suburbs—Sedgebrook, Durietown, Putiki, Castlecliff, Mosstown, St. John's Hill, Aramoho, and Eastown—the population is over eight thousand. The town is accessible for sea-going steamers drawing up to 13 ft. of water.

The trains connect with New Plymouth and Wellington at Aramoho, Wanganui itself being on a branch line. There is also a private line to Castlecliff.

WANGANUI TO PIPIRIKI.

This trip is made by steamer, there being three on the river. Another steamer meets the lower-river steamers at Pipiriki, and runs up to Utapu and back. This allows the passengers to be carried on by steamer or coach to their destinations after having had a short glimpse of the beauties of the upper river.

An important native settlement, Parikino, is reached at 23 miles. Here a stop of a few minutes is usually made, in order to discharge supplies, &c. From Parikino upwards the bush is mostly down to the water's edge, except where cleared away round Native settlements. Immediately below and at several places just above Parikino may be seen stone walls or groins constructed in the river, for the purpose of improving it. From here, when the river is at summer level, the steamers are usually hauled up the rapids by means of wire ropes laid for the purpose. The ropes are passed round powerful winches on board the steamers, the ends being dropped over astern as the steamer works her way up. For ease in picking up, the ends of the ropes are supported by buoys. A thorough knowledge of the channels, combined with great skill and patience on the part of the crew, are necessary in order to pilot the steamers through these rapids, though there is no actual danger in the accomplishment of this.

At Atene (Athens), 30½ miles, a picturesque kainga is passed. A very sharp bend in the river is here caused by the river at some long remote period having cut through a narrow ridge, thus shortening its course by over a mile.

Koriniti (Corinth), at 39 miles, is also prettily situated.

Karatia (Galatia), 43 miles, is just above the bad rapid, Matahiwi. Here the fall is 6 ft. in a quarter of a mile.

Ranana (London), 46 miles, was formerly an important place, but is now becoming very quiet. About half a mile above it is the island of Moutoa, on which, on the 14th May, 1864, was fought a pitched battle between the friendly Wanganui Natives and the Hauhaus. This fight probably saved the Town of Wanganui.

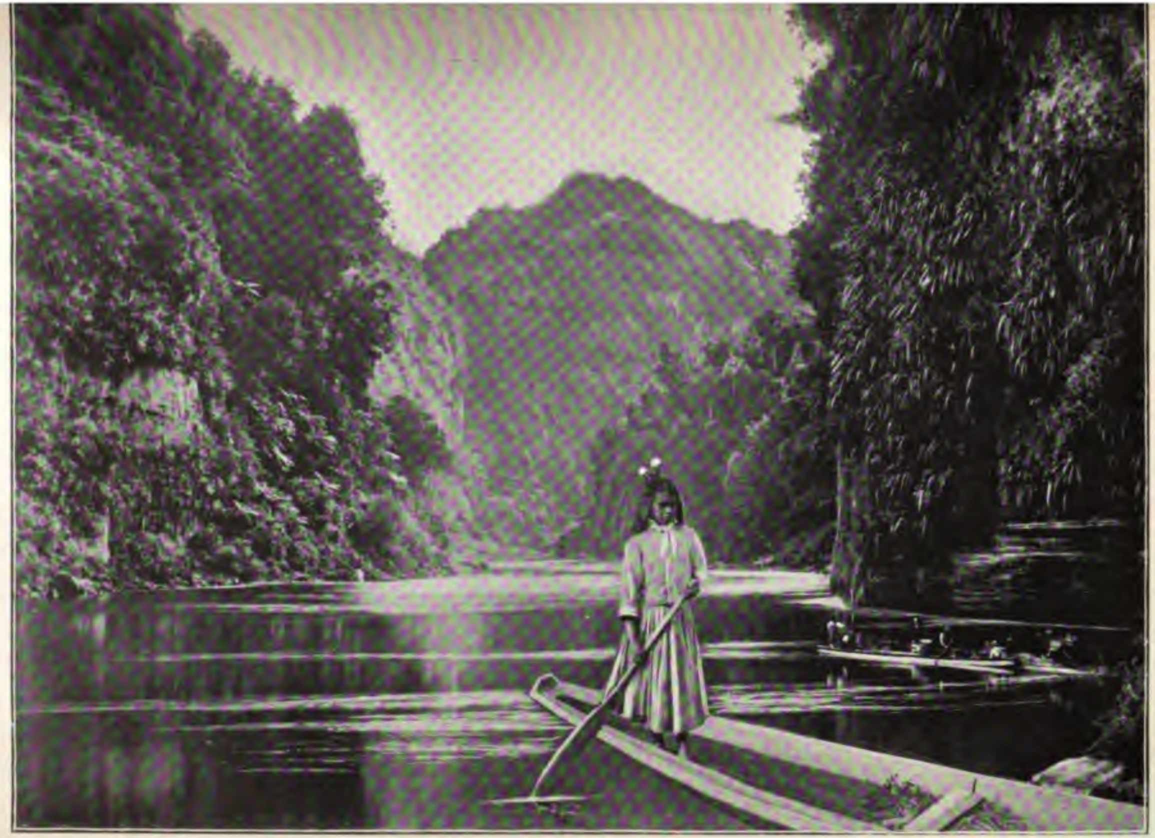
Hiruharama (Jerusalem), at 49 miles, is at present the most important native settlement on the upper river. It possesses a Roman Catholic church, convent, and orphanage. The considerable area of farm-lands attached to the establishment is worked almost entirely by the nuns or sisters. From here to Pipiriki, at 56 miles, the scenery is much finer than in the lower reaches, the channel being confined between high cliffs of limestone and papa rock, densely wooded to the water's edge.

Pipiriki is the terminus of the lower-river navigation. Here the coach-road turns off to Raetihi, Karioi, and the Lakes. A township was sold here in July, 1897.

Pipiriki to Taumaranui.

This tour has hitherto only been possible by means of canoes. It is proposed in the future to clear the river for steamers to within about fifteen miles of Taumaranui, the balance of the distance being easy country, through which a good coach-road could easily be constructed to connect with the proposed Main Trunk Railway at Taumaranui.

As the canoe is propelled up the rapids by poles, it is absolutely necessary that skilled labour be employed; the attempt to ascend or shoot the rapids when only novices are on board would most probably end in a serious accident. Voyagers on the river will notice along the steep papa banks of the river large numbers of holes made by the hardened points of the poles used by the Natives in poling their canoes up-stream. If canoeing for more than one day is decided



Martin, Photo.

The Drop Scene, Wanganui River.

upon, a supply of tents, blankets, waterproof cloth, cooking utensils, and food will have to be provided, sufficient for the whole party, including the crew. These are obtainable at Pipiriki. The canoes are usually about 40 ft. long, by 3 ft. beam, with side-boards, and are furnished with seats, oars, poles, and paddles. In ascending, the average speed is about two miles an hour, and in descending about four.

From Pipiriki to Ohura, and a few miles beyond, the scenery on the river is very fine indeed, much finer than any to be seen below Pipiriki, the part between Pipiriki and Tieke being probably the best of all.

From Pipiriki, 56 miles, to Manganui-a-te-ao, 63 miles, there are a number of very swift rapids, the rise in this part being greater than on any other within the first 120 miles. The names of the worst rapids are Paparoa (immediately above Pipiriki), Te Aomarama, Autapu, Mangaio, and Ngaporo. These rapids are now being improved, and shortly will present no greater difficulties or dangers than those below Pipiriki.

About 5 miles up on the proper right bank there are two caves, through one of which a large creek rushes, forming a waterfall at its junction with the river. At this point there is a splendid site for a suspension-bridge at some future period.

The Manganui-a-te-ao is a large turbulent stream fed chiefly by the snows of the Ruapehu, but is only navigable by canoes for a few miles on account of the roughness of its bed and its great fall.

Tieke, reached at 70 miles, is pleasantly situated on some undulating and partly open country.

At 72 miles, another native kainga, Utapu, is passed. From here to Retaruke, at 108 miles, there is practically no settlement on the river.

At 80 miles the Wangamomona Stream, flowing from the western side, joins the river.

At 86 miles the Tangarakau River is reached. This is a long stream running in a deeply-cut gorge, abounding in fine scenery, rising nearly 100 miles to the north-west. The water is of a dark-brown colour, forming a striking contrast at the junction to the clear water of the main river. There are several coal-seams on the Tangarakau, but at present they are too inaccessible to be utilised. This river has been cleared for a distance of fourteen miles for canoe-traffic, to a point whither coach-traffic can be brought from Stratford *viâ* the East Road. Steamer traffic has not yet been taken past the Tangarakau, but no doubt in time it will be extended up, as previously stated.

At 98 miles there is an extremely bad rapid, called Tareipokiore, caused by a landslip.

Retaruke Stream, coming from the Waimarino country to the east, joins the river at 108 miles. This stream is navigable by canoes for about twenty miles.

At 111 miles the Ohura River, from the north-west, joins the main river, forming two waterfalls, one just at the junction, and the second about a quarter of a mile up. Above this waterfall the Ohura is navigable by canoes for a considerable distance, and traverses some fine grazing country as yet untouched.

About 120 miles up, the valley of the river begins to widen out, and the scenery becomes much less striking. From Jerusalem to this point, a distance of 70 miles, the river runs in a narrow, and often very deep channel, mostly between precipitous papa cliffs, every available foothold being covered with a more or less luxuriant growth of ferns, shrubs, or forest-trees. The numbers of waterfalls to be seen tumbling into the river on either side, especially after heavy rain, greatly enhance the beauty of the river scene.

At 136 miles Taumaranui is reached. Here the main river is joined by its most important tributary, the Ongaruhe, from the King-country. Down the valley of this river runs the Main Trunk Railway. There is a large Native settlement here. The country is fairly open, but of poor quality, pumice being everywhere visible. There is a horse-track from Taumaranui to Raetihi.

Canoes can ascend the Wanganui for a few miles beyond Taumaranui, but the rapids are numerous and swift and the settlement very small; also, the scenery is of a character not requiring any decription. Rumours have been floating about here for years as to the existence of gold in certain of the creeks above Taumaranui, but as yet none has been discovered.

PIPIRIKI–WAIOURU ROAD.

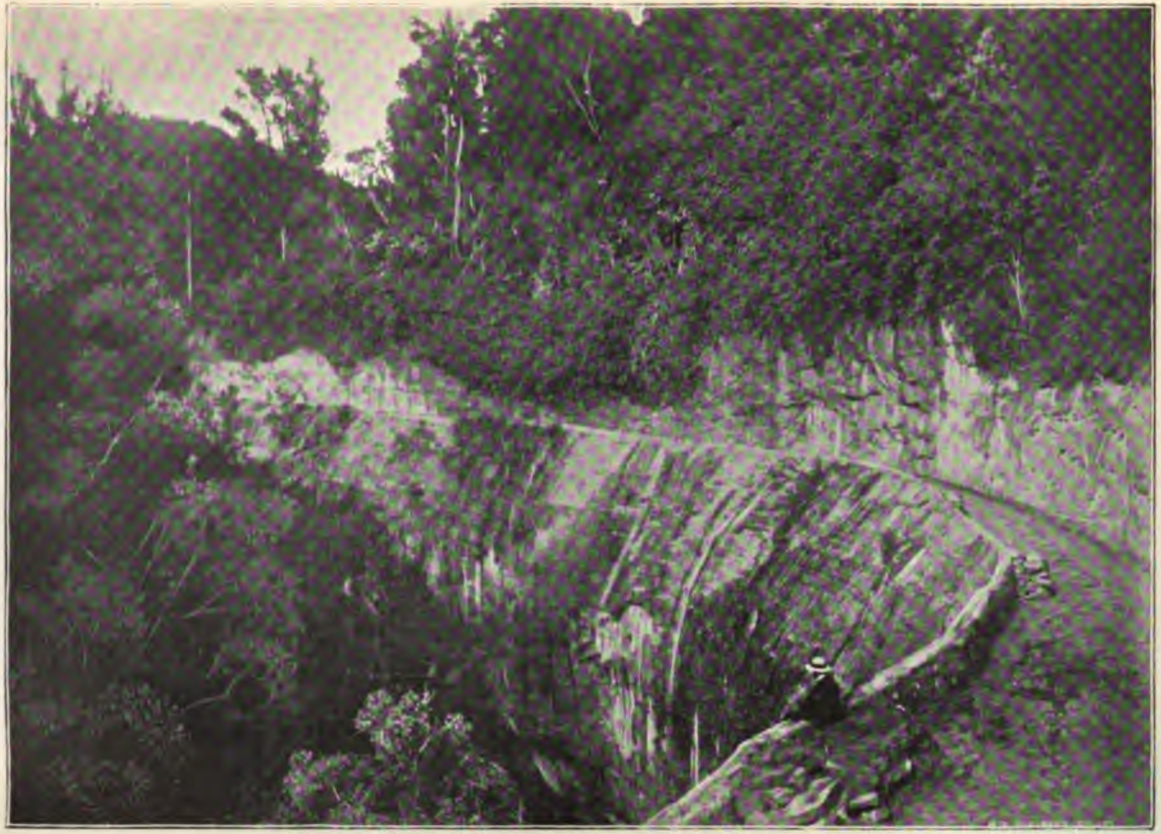
Distance, 41½ miles. The journey is made by coach. From Pipiriki to Raetihi it is very desirable, if possible, to obtain a box-seat, in order to thoroughly appreciate the very picturesque scenery with which this part of the road abounds.

Leaving Pipiriki, a very long ascent is made for the first 7 miles up the valley of the Kaukore Stream. In two places the road is cut out of the solid papa precipices, forming what are now known as the "Dress Circles." The creeks here run in perfect cañons, excavated by the erosion of the water during countless ages. All this valley is most beautifully forest-clad. In January the hill-sides are especially attractive, on account of the scarlet rata, then in full bloom.

At 8½ miles from Pipiriki the Mangoihe Creek is crossed by a truss bridge. Just above this is a third "Dress Circle."

At 11 miles the Waipuna Saddle is reached. This is the watershed of the Wanganui and Wangaehu Rivers. Its height is 1,791 ft. About a quarter of a mile past the saddle a very fine and extensive view is obtained of the Waimarino Plain, covered with dense forest, and backed by the snowy peaks of Ruapehu and the active volcano Ngauruhoe. Two miles' descent brings the coach to the Mangaetoroa Stream, which rushes through a tunnel excavated beneath the road.

At 17½ miles Raetihi is reached. This township is six years old, and well situated for becoming an important place in years to come,



Martin, Photo.

The Dress Circle.

though as yet it only contains a population of about one hundred people. The coaches change horses here, and the passengers have an hour for lunch. For many miles around here, in all directions, there is an extremely fine forest—rimu, or red-pine, being the most common tree. There is a large amount of settlement going on in this district, but the settlers have much to contend with in the expense they are put to in felling the heavy bush to improve their lands, and by the distance to markets.

From Raetihi, at 17½ miles, past Ohakune, at 24½ miles, to Waione, at 30½ miles, the grand forest country still continues, with occasional small Native and European clearings. There are a few fine glimpses of Ruapehu, notably so at Ohakune, a small township on the Mangawhero River, and not far from the line of the proposed Main Trunk Railway. There is an old natural clearing at Ohakune, but as a township it has not prospered. The Mangawhero and Mangateitei Rivers are both crossed by good fords, but when the rivers are at all swollen it is preferable to make a detour at this part for about three miles, *viâ* what is known as the Rangataua Road.

At Waione, 30½ miles, the open country is come upon quite suddenly. From here practically to Rotorua there is no more bush to be traversed, and throughout all this distance the land is of very poor quality, and is only fit for pastoral purposes in large areas. Except for fine views of the mountains and fine bracing air the coach drive from Waione to Waiouru is very monotonous.

At 32½ miles Karioi is reached. There being no facilities for the accommodation of travellers at Waiouru, the night is usually spent at Karioi, the passengers staying at the accommodation-house. Stabling and paddocking can also be obtained here. The view from Karioi of the glacier on the southern slope of Ruapehu is very fine.

On the following morning Waiouru is reached early. Four miles further on the Wangaehu River is crossed by a good ford. The waters of this river are strongly impregnated with sulphur, and at times quite unfit to drink. Waiouru is merely a coaching station at the junction of the Ohingaiti, Tokaanu, and Pipiriki Roads. It is situated upon a bleak tussocky plateau 2,600 ft. above the sea-level, the only habitation near it, besides a small accommodation-house, being a shepherd's hut, an outpost of the Karioi sheep-station, though there will in time probably be an important coaching station here.

WAIOURU–TOKAANU.

This coach road was opened for traffic in 1894. It is all through open country, and in better condition in wet than in dry weather, for it is of pumice formation, which cakes hard in wet weather and becomes very dusty in dry. Rapid travelling, comparatively speaking, is made on this trip, especially from Waiouru to the Desert. The splendid mountains Ruapehu and Tongariro dominate the view on the left, and the fine range of Kaimanawa closes the view on the right, so that although the trip is otherwise monotonous, with only occasional mountain torrents and a view of Lake Taupo, the fine bracing air and clear cold water serve to make the journey pleasant.

Waiouru is left immediately after the arrival of the coach from Karioi. A level tussocky plain for 2¼ miles brings the traveller to the edge of the deep gully formed by the Waitangi Creek. On ascending from that another plain 3 miles long is traversed. The Paripokai Terrace is then climbed. From here the Wangaehu River can be seen wending its way for miles across the plains from its source in Ruapehu, till it enters the bush near Karioi. On top of this terrace the road runs perfectly straight along a plain covered with tussocks and snow grass for 4½ miles. The elevation of Waiouru above sea-level is 2,570 ft. This upper plain is from 3,100 ft. to 3,300 ft.

Mamoenui Creek is crossed by a ford at 12 miles. This is a tributary of the Moawhango River. Just beyond this lies the Onetapu Desert, a region of loose sand and gravel brought down from the slopes of Ruapehu, and sparsely covered with stunted vegetation. It is to be noted that three small streams are here running almost parallel, within half a mile of one another. One goes to join the Wangaehu, another to join the Rangitikei, and the third to join the Waikato.

The head-water of the Waikato is crossed at 14½ miles. Just below the bridge the stream dives into a deep cañon, in which it runs for miles.

At 15¼ miles the summit of the road is reached, the height being 3,410 ft. Here the first view is obtained to the north of Taupo Lake, over 2,200 ft. lower in elevation, and nearly 30 miles distant. From here there is a general fall all the way, but there are numerous ups and downs on the road, many of them being long and steep, though no steeper grades than 1 in 15 are met with.

The Kaimanawa Range, with bare tops and over 5,000 ft. high, with the lower slopes thickly covered with birch (beech) bush is seen to the right, and on the left are the Ruapehu and Tongariro Mountains.

The Mangatoetoenui Stream is crossed by a ford at 18 miles. There is at 19¾ miles a picturesque bridge situated in a wooded gully just below the confluence of the Ohinepango and Waihohonu Streams.

A birch bush, about a mile nearer the mountains, affords good camping places from which to make excursions to Ruapehu. This mountain is 9,008 ft. high, with perpetual glaciers on the summit and southern sides and snow on the other sides, except from January to March, when they are all bare except in shaded places. For the ascent a clear calm day should be selected, as on the summit the cold is very severe if there is any wind. A guide is advisable for strangers, but not absolutely necessary if members of the party are accustomed to mountaineering work, and if good directions are obtained before starting. The mountain was probably first ascended by Europeans in 1877, but since then it has frequently been climbed. In 1881 Mrs. W. Birch reached the summit and crossed the ice-field. The ascent may be made from Waihohonu to the north peak, Te Heuheu. This is the easiest climb. If horses are available they can be ridden from Waihohonu for two hours up the long stony lower slopes of the mountain, and then tethered to rocks in a sheltered gully. A long spur on the north-eastern slope of the mountain is then climbed, and after three hours' labour the summit should be reached. The ascent is not at all dangerous, but somewhat laborious on account of the loose surface stones, gravel, &c., being all on the move, though in the descent this can be taken advantage of to immensely quicken the pace. On the summit the views are very extensive and grand, nearly one-third of the North Island being spread out to view like a map, but the large extent of the top renders a simultaneous view of the whole impossible. The southern peak, Para-te-tai-tonga, may be ascended from the Karioi side, but near the summit the ascent is very steep and rather dangerous. In order to obtain an early start for this route, the camp should be pitched on the previous evening at the "Round Bush," about 10 miles from Karioi.

Another route is by way of the Wangaehu River. By making a very early start from Waiouru, crossing part of the desert, and leaving the horses above the Black Rock, which divides the Wangaehu and Waikato Rivers, the ascent may be made to the summit, striking the plateau at its lowest point. But the climb this way is also much steeper and more dangerous than by the north-eastern spur. On the western and southern slopes there is bush to an altitude of 5,000 ft., but the other slopes are formed of long bare rounded stony spurs, gradually increasing in steepness towards the summit. On the summit there is a large ice-field, near the margin of which is the crater-lake. This lake is about 80 ft. below the general level of the ice-field, with steep walls, and is about 10 acres in extent. The temperature varies from tepid to boiling. Some mountaineers have reported it (1885) with no appearance of heat, while others state (1890) that it was in a state of intense activity. Specimens of water from the lake have been obtained and analysed. In March, 1897, the descent to a beach on the edge of the crater-lake was accomplished at one place with tolerable ease, but at all other places the sides were very precipitous. The water was then cool at the edges, but nearly boiling in the centre. Though the mountain was covered in ice and snow the temperature at the lake side was quite mild. The water from this lake flows by underground channels into the Wangaehu River, and in 1859, probably from a heating of the mountain, the lake-water was suddenly thrown over the adjoining ice-fields, causing an enormous mass of water, ice, and *débris* to tear down the mountain-side, sweeping down the Wangaehu, and destroying the traffic-bridge near the sea-coast.

At the 22-mile peg the half-way station is reached. Here a halt is made for an hour or so for lunch and horse-feed. Lunches have to be brought in the coach, as there is no one resident here, though probably in time this will form the starting point for the mountain tours. The coaches from Waiouru and Tokaanu meet here, and passengers change coaches.

A long descent into and out of Oturere Creek is made at 24¾ miles. About this point of the journey the creeks are nicely wooded, and occasional clumps of birch bush give the country quite a park-like appearance. Some deer were liberated here in the autumn of 1897.

From Oturere, where good camping-places are obtainable, the excursions to Ngauruhoe and Tongariro can be conveniently made. As before stated, Waihohonu is a good starting-point for excursions to Ruapehu, but Oturere is about four miles nearer to the mountains. An early start should be made up the long spur to the north of Oturere Creek. Horses may be taken for about 4 miles, and thus save a lot of exertion to the travellers. The horses being securely tethered in some sheltered gully, the course should be directed over the bleak waste of lava and ash to the saddle between Ngauruhoe and Tongariro. A lava ridge should be selected for the final ascent of the cone, for climbing up the cindery face is most fatiguing work. The ascent can be made on foot, and the camp again reached in ten hours, by moderate walking. The height of the cone is 7,515 ft. The crater is about a quarter of a mile in diameter, and the western wall is much lower than the rest of it. Great volumes of steam and sulphur-fumes are constantly issuing from this crater. Care should be exercised to keep on the windward side of the fumes. There was an eruption in 1868–69, and considerable extra activity in 1881 and 1892.

There is evidently intimate connection between Ngauruhoe, Ketetahi, and Te Mari, other volcanic vents in the Tongariro Range some miles to the north, for increased activity in one sometimes means increased activity in all, and sometimes almost a total extinction of all except the specially active one. On a clear day the view from the summit of Ngauruhoe is very fine, especially to the westward, over the Waimarino Plains and undulating bush-clad country right to the slopes of Mount Egmont, 8,280 ft. On the elevated plateau between Ruapehu and Ngauruhoe are two crater-lakes, known as Nga-Puna-o-Tama. From these lakes Native tradition says that Taranaki—*i.e.*, Mount Egmont—was expelled by Tongariro on account of his having paid undue attention to Pihanga (a cone 4,000 ft. overlooking Tokaanu), wife of Tongariro. There is also a Native legend as to how Ngauruhoe first became active. Shortly after the Maoris first came to New Zealand from Hawaiki a great chief, Ngatoro-i-rangi, climbed this peak, and, requiring fire to perform certain rites, he called to his wife at Whakaari (White Island, in the Bay of Plenty) to bring him some of the sacred fire carried thither from Hawaiki. As this fire must not be seen by ordinary mortals, it was brought underground all the way. Here and there, however, as at Rotorua, Tarawera, Orakeikorako, Taupo, and other places, some of it was spilled, and sprouting up formed the thermal springs, &c., at these places. But the main portion of the fire was brought to Ngauruhoe, into the crater of which the chief then threw his slave wife Ngauruhoe. This mountain is called by some Auruhoe, but most commonly Ngauruhoe, though both names are considered correct.

The ascent of Tongariro may also be made from Oturere, but it is best done from Papakai.

At 25 miles the Mahikaikatoa Stream is crossed; then come the Mangatawhai and Mangamate Streams, at 27¼ and 27¾ miles respectively, all running in deeply-cut gorges fringed with birch bush.

At 30 miles the Moturoa Bush is seen to the right. From here there is a fine view of Taupo Lake, and from a little lower down Rotoaira Lake is seen to the left, lying between Tongariro and Pihanga.

At 31¾ miles the Puketarata Creek is forded. From this onwards the country consists of low undulating ferny ridges of very poor quality.

At 34¾ miles the road to Rotoaira turns off.

At 36½ miles the Poutu River is crossed by a two-span bridge. This stream drains Rotoaira Lake, and has a very rapid fall. About half-a-mile down it joins the Waikato River, which has now become a large stream with shingle bottom, pumice banks, and beautiful clear rushing water.

The Waikato falls into Lake Taupo by a sort of delta, and in conjunction with numerous other streams flowing into the lake, finally emerges out of the lake at Taupo Township on its way to join the ocean on the west coast.

After crossing the Poutu River the road skirts the north-eastern slopes of Pihanga, with fine forest on its slopes, and an extinct crater on its summit.

At 39¾ miles one road turns to the right, going to the Waikato Bridge and onwards to Taupo, while the one to the left leads to Tokaanu.

The route now lies over low undulating ridges, flats, and swamps, covered with manuka, scrub, toetoe, raupo, or flax, into Tokaanu, which is reached after passing round the southern base of the volcanic cone, Maunganamu. The total distance from Waiouru to Tokaanu is 43¾ miles, the mileage being marked by red posts, with the numbers cut on them, on the western side of the road.

Tokaanu is situated on a stream of the same name, about a mile from the lake, and is 1,200 ft. above sea-level. The whole flat between the Tokaanu Stream and the volcanic range behind teems with thermal action of all descriptions. The hotels are cleanly kept, and can supply good meals, beds, horse-feeds, and paddocking. If the travellers prefer camping out there are plenty of good sites in the locality, though possibly the Natives will object to camps being pitched too close to their dwellings or to the *puias* which they frequent.

In order to see the chief attractions of the place, it is necessary to cross the Tokaanu Creek by a bridge formed by a hollowed-out tree. The geyser Te-korokoro-a-te-poinga is reached by taking a small path to the right, after crossing the bridge. It does not now throw out the water, but at intervals raises the water-level several feet. It is always in a state of turmoil, and emits a large column of steam. Across the bridge are several *puias*, in which very pleasant baths may be had. The temperature varies from time to time. A *puia* may be cold one year and boiling in the next, and *vice versâ;* in fact, even from day to day there are great variations in temperature. It is, therefore, always necessary to try the temperature of the water before entering. It is dangerous to wander about in the locality of the *puias* anywhere off the beaten track without a guide, as the ground is notoriously treacherous, several painful accidents having been recorded. Hitherto these *puias* and the sights generally of Tokaanu have not been improved in any way by the formation of tracks, by shelter-sheds, dressing-rooms, regulation of the waters, or in any other way. A township has been laid off.

On the slopes of Kakaramea, to the south-west of Tokaanu, there is a regular line of steam-holes, supposed to indicate approximately the upper limits of the great landslip that overwhelmed many of the Native inhabitants in 1846, the chief, Te Heuheu, and fifty-four of the inhabitants of the kainga being killed, only three escaping.

Waihi, a Native settlement on the shores of the lake, 2 miles westward from Tokaanu, may be reached by a rough track, but it is much pleasanter going there by boat or canoe, provided that the lake is sufficiently smooth. The present chief, Te Heuheu, grandson of the chief of the same name who was killed in the landslip above mentioned, lives at Waihi. There is a Roman Catholic mission station and church here. The Waihi waterfall is situated close to the settlement. It consists of three drops, the upper of which is 25 ft. the middle 125 ft., and the lower 15 ft., making a total of 185 ft. There is a fairly large body of water, and its surroundings are very pretty.

Pleasant boating excursions along the western shores of the lake may be made from Tokaanu, but voyagers are warned of the sudden squalls that visit the lake, very soon raising a heavy sea. Excursions by land may be also made to Pihanga, Kakaramea, and Roto Aira. There is a Native bridle-track leading over the saddle to Roto Aira between these mountains. Pihanga, 4,000 ft., is on the left of the track, and Kakaramea, 4,259 ft., on the right. A guide through the bush is necessary to both of them. The views from the summit of either of them are very fine. Both are extinct volcanoes.

Roto Aira may be reached on foot or on horse in about three hours from Tokaanu by going over this saddle, or by driving along the Waiouru Road, turning off at the Roto Aira Road Junction. This track going over the saddle to Roto Aira may be continued in order to reach Papakia, from which the ascent of Tongariro is made. It is about 10 miles shorter than by following the main road.

ASCENT OF MOUNT SEFTON AND ACCIDENT THEREON.

[From Fitzgerald's "Climbs in the New Zealand Alps."] *

On the Copland side of Mount Sefton is a vast precipice, which descends perpendicularly to a glacier black with the *débris* fallen on its surface from that ever-crumbling mass. This precipice must be fully 5,000 ft. sheer drop, and is similar in some ways to the precipice on the south side of Mount Sealy, but considerably steeper. In places it seems to overhang, and its whole face is in a perpetual state of decay, the rocks breaking away in small pieces, usually about the size of an ordinary brick.

The weather now appeared promising, but with our previous experience we did not venture to count upon it, so halted for a moment only to eat our box of sardines and a few biscuits, and, although this was our first rest since leaving the bivouac, we at once made preparations for the final climb. We knew it would be difficult, and at that moment felt that it might even prove impossible, so perpendicular were the cliffs that rose up towards the goal we had in view. We agreed to leave behind us everything that we could possibly spare, and accordingly, at about a quarter to 7, set off in the lightest marching order, determined that—even if eventually defeated—we would at least have a hard fight for success. Zurbriggen insisted upon my carrying in my pouch a bottle of claret he had brought from the Hermitage, for, as he assured me, "When I have the peak in my pocket we shall wish to drink to its health, and I will also smoke half a cigar in honour of the occasion." These were about the first words we had spoken since leaving the bivouac, for our moonlight journey through the glaciers had not been conducive to genial conversation. He also pointed out to me that if we did not have an empty bottle into which we could put our cards when we reached the summit it would be really no ascent at all; nor would it count in the annals of the Alpine Club as "recorded."

Zurbriggen started first, and traversed a bit of rock *arête* leading to the base of the great cliff which we intended to scale. This *arête* was as rotten as it could well be, and the stones literally crumbled away beneath our feet at each step. We crawled along its summit, and found it so thin as to form a veritable knife-edge, actually leaning over on the Copland side. I could feel the whole mass tremble as

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* Mr. A. E. Fitzgerald, accompanied by Matthias Zurbriggen, the Swiss guide, ascended Mount Sefton, 14th February, 1895.

Zurbriggen stepped along it. It was an intense relief to us both when we exchanged what seemed uncommonly like an experiment in tight-rope walking for an apparently more solid footing—solid by comparison only, for many people, I have no doubt, might have raised most reasonable objections to even this part of the mountain from the point of view of its stability. Now, instead of small crumbling stones, we were confronted by enormous boulders, which appeared to be solidly imbedded in the mountain-side, but were in reality so delicately poised as to threaten to give way when touched. We were soon climbing cautiously up an almost vertical face of loose rock, clinging to it like flies, and trying each stone carefully with our hands before trusting our weight upon it. Zurbriggen especially had to be most wary, for unavoidably my position was vertically below him at every step, and the smallest stone falling from under his feet might have seriously injured me. How he managed this perilous task will always be a wonder to me, and a finer display of mountain craft and rock-climbing than he exhibited on this occasion is scarcely conceivable.

After about an hour of this sort of work we at last came to a place where the face of the mountain on the Hermitage side proved to be slightly less steep; crossing over to this we were able to make somewhat more rapid progress.

Directly in front of us now rose what we had always supposed, when looking at it from the Hermitage, to be the worst bit; from our present position it seemed, if possible, even more appalling. The rock was indeed better in some respects, and rather less crumbly than that which we had just traversed; but, on the other hand, there were many huge blocks of stone which would give way if the slightest weight came upon them. We kept, whenever it was possible, to the rocks that seemed most coated with ice, in the hope that they would be bound together by the frost, and thus afford a more secure foothold, though by so doing the difficulties of climbing were doubled. We advanced in this way a few steps, but only to find ourselves again forced to return to the crest of the *arête*, and thence proceed between two precipices descending to the Copland and to the Mueller Valleys—some 6,000 ft. sheer drop on either hand.

We had now to climb about 300 ft. of almost perpendicular cliff, apparently in the very worst condition possible. The rocks were peculiarly insecure, and we were obliged to move by turns, where possible, throwing down such rocks as seemed most dangerous; at times even this resource became impossible, so great was the violence with which these falling masses would shake the whole ridge on which we stood. I carried both the ice-axes, so as to leave Zurbriggen both hands free to test each rock as he slowly worked his way upwards, while I did my very utmost to avoid being in a position vertically under him.

Suddenly, as I was coming up a steepish bit, while Zurbriggen waited for me a little way above, a large boulder that I touched with my right hand gave way with a crash and fell, striking my chest. I had been just on the point of passing up the two ice-axes to Zurbriggen, that he might place them in a cleft of rock a little higher up, and thus leave me both hands free for my climb. He was in the act of stooping, and stretching out his arm to take them up from my uplifted left hand, the slack rope between us lying coiled at his feet. The falling boulder hurled me down head foremost, and I fell about 8 ft., turning a complete somersault in the air. Suddenly I felt the rope jerk, and I struck against the side of the mountain with great force. I feared I should be stunned and drop the two ice-axes, and I knew that on these our lives depended. Without them we should never have succeeded in getting down the glacier through all the intricate ice-fall.

After the rope had jerked me up I felt it again slip and give way, and I came down slowly for a couple of yards. I took this to mean that Zurbriggen was being wrenched from his foothold, and I was just contemplating how I should feel dashing down the 6,000 ft. below, and wondering vaguely how many times I should strike the rocks on the way. I saw the very block that I had dislodged going down in huge bounds; it struck the side three or four times, and then, taking an enormous plunge of about 2,000 ft., imbedded itself on the Tuckett Glacier. I felt the rope stop and pull me up short. I called out to Zurbriggen and asked him if he was solidly placed. I was now swinging in the air like a pendulum, with my back to the mountain, scarcely touching the rock-face. It would have required a great effort to turn round and grasp the rock, and I was afraid that the strain which would thus necessarily be placed on the rope would dislodge Zurbriggen. His first fear was that I had been half killed, for he saw the rock fall almost on the top of me; but, as a matter of fact, after striking my chest it had glanced off to the right and passed under my right arm; it had started from a point so very near that it had not time to gain sufficient impetus to strike me with great force. Zurbriggen's first words were, "Are you very much hurt?" I answered, "No"; and again I asked him whether he was firmly placed. "No," he replied, "I am very badly situated here. Turn round as soon as you can; I cannot hold you much longer." I gave a kick at the rocks with one foot, and with great exertion managed to swing myself round.

Luckily there was a ledge near me, and so, getting some hand-hold, I was soon able to ease the strain on the rope. A few moments later I struggled a little way up, and at last handed to Zurbriggen the ice-axes, which I had managed to hold throughout my fall. In fact, my thoughts had been centred in them during the whole of the time. We were in too bad a place to stop to speak to one another; but Zurbriggen, climbing up a bit further, got himself into a firm position, and I scrambled up after him, so that in about ten minutes we had passed this steep bit.

Here we sat for a moment to recover ourselves, for our nerves had been badly shaken by what had so nearly proved a fatal accident. At the time everything happened so rapidly that we had not thought much of it, more especially as we knew that we needed to keep our nerve and take immediate action; but when it was all over we felt the effects, and both sat for about half an hour before we could even move again. I learned that Zurbriggen, the moment I fell, had snatched up the coil of rope which lay at his feet, and had luckily succeeded in getting hold of the right end first, so that he was soon able to bring me nearly to rest; but the pull upon him was so great, and he was so badly placed, that he had to let the rope slip through his fingers to ease the strain while he braced himself in a better position, from which he was finally able to stop me. He told me that, had I been unable to turn and grasp the rocks, he must inevitably have been dragged from his foothold, as the ledge upon which he stood was literally crumbling away beneath his feet. We discovered that two strands of the rope had been cut through by the falling rock, so that I had been suspended in mid-air by one single strand. The rope, however, was an excellent one, made by Buckingham, and held through this severe test. During this episode I lost my hat. At the moment of the accident my mind was perhaps equally divided between the effort of holding fast the ice-axes and the melancholy vision of this the last and only hat I possessed sailing gently down like a parachute towards the Copland Valley, never even once touching the face of the cliff. I was obliged now to have recourse to handkerchiefs as headgear, after the fashion of the bandanna; later on however, I succeeded in manufacturing a most excellent cap by stretching an old sock.

I was considerably hurt by the stone, for it had made a cut in my side, which bled a great deal and did not heal for a couple of weeks. We determined, nevertheless, to finish the ascent.

There was yet another very bad place a few steps higher up, but this we succeeded in scaling without serious incident. When we reached the top of it we saw that it would be possible to cross the face on the Copland side, and, getting on to a snow-slope that leads down towards the Douglas Glacier, to climb up some rocks there that seemed easier, and thus to gain the summit. We found the snow-slope, which we had to cross in a diagonal line, in a very bad condition, and much wrecked by falling stones; while traversing it we constantly feared lest we should start an avalanche, and were obliged to advance very cautiously, plunging our ice-axes in as deeply as possible at every step. When we reached the point where we intended to take to the rocks again it proved no easy task to get on to them, as they were quite smooth and rose perpendicularly for some distance. The only practicable method seemed to be that I should mount upon Zurbriggen's shoulders, and from there endeavour to gain a ledge, where I thought I might fix myself firmly with the rope, so that Zurbriggen should be able to scramble up after me. He suggested that he should get on my shoulders, but, strangely enough, this scheme did not appeal to me as much as the other. Zurbriggen weighs considerably over twelve stone! So I climbed up on his shoulders, and, after a great deal of stretching and of shoving from behind—for there was really no intermediate hand-hold—I wriggled up far enough to get my fingers on to the edge. Then, after a few more contortions, I succeeded in reaching the ledge itself, some 15 ft. above the snow-slope where Zurbriggen was standing. Here I planted myself firmly, and, winding the rope round a projecting point of rock, I managed to help up Zurbriggen, after a struggle quite insignificant in comparison to the one we had just gone through. It is wonderful how light he seems when climbing. The slightest assistance proves quite sufficient for him in the most impossible places.

In another twenty minutes we reached the *arête* again, and the last few yards before gaining the peak itself proved comparatively flat, so that we could walk along without difficulty. We were now able to look down again towards the Tasman Valley, and I wondered if our friends at the Hermitage would see us as we planted our ice-axes on the summit, tying to them a bit of red cloth which we had brought for the purpose that they might know we had won the day.

I learned afterwards that we were seen almost immediately, and that Adamson rode off at once to the nearest telegraph-office at Burke's Pass, some ninety miles away over a rough country and across many fords, so that the news reached Christchurch next morning at 11.

It was now 10.25. Zurbriggen was wild with delight, stamping triumphantly on the summit, and pouring out volleys of abuse at it for its long, stubborn resistance. I suggested that it might be as well to wait till we had made the descent before thus rousing its anger. The wind was very cold and had now risen to a gale, though the day remained otherwise fine. Descending for shelter to the side towards the north-west, we sat down facing Mount Stokes, and prepared to drink our bottle of wine, which, wonderful to relate, had not been broken in my fall. Zurbriggen now produced his cigar, which he carefully cut in two, reserving, as he said, the other end to smoke when we should have successfully traversed the range to the West Coast.

For the great question which had so long occupied our minds as to the possibility of finding some practicable route across the great mountain-range, thus rendering easy the journey from the arid plains of Canterbury to the fertile fields of Westland, seemed now at last on the point of solution. As we gazed down towards the head of the Copland and Douglas Valleys, we at once saw that there was a point where it would be possible to traverse the range without even touching snow on the west slope, while on the east, or Hooker, side we knew there were no glaciers of any importance. We promptly determined to seize the earliest opportunity to cross by this pass, and, descending the Copland and Karangahua Rivers, to push on until we reached some habitation on the West Coast. Thus we hoped thoroughly to explore the whole region, so that there should be no further doubt as to the possibility of building a track by the route we now perceived. We would then find some high alpine pass back between Haast and Haidinger which would enable us to return to the Hochstetter bivouac.

Thus we planned for the future as we gazed from this peak of ice, where no living being had ever preceded us, at the marvellous panorama unfolded before our eyes. It was now nearly 11, and the sky was blue and cloudless. The South Pacific Ocean lay calm and sparkling in the sunlight, with its long, white, intermittent streak of surf beating upon the smooth beach of the West Coast. Around and behind us the Alps rose range behind range, their vast glaciers and fields of everlasting snow shining bright in the clear morning air. For a short space of time we enjoyed to the utmost the sense of rest after all we had gone through.

Soon, however, our joy of conquest was overshadowed by the thought of the descent before us, and after a brief delay we set about preparing to make our way down. But before leaving we were careful to erect a great cairn or stone man near the summit, in such a position that it could be seen distinctly from the Hermitage, and would thus furnish a permanent proof of our ascent. We built it on the very edge of the *arête* next the snow, so that it would stand out on the sky-line from the Hermitage. Then scribbling our names on a sheet of paper, with the date (which, by the way, I put wrong, writing 15th instead of 14th February), we put it in the now empty wine-bottle, and, corking the latter securely, we placed it among some rocks close to our stone man for the next traveller to find who should ascend this inhospitable peak. Towards the west lay a great glacier that came nearly up to the peak on which we stood, steep indeed near the top, but below forming itself into a large plateau, and finally flowing over the edge of a vertical wall some 1,000 ft. in height in great avalanches which form themselves anew into a glacier and flow onward towards the sea. If some way were found to reach this plateau, I have no doubt that it would furnish a safe route up Sefton, but the valleys on that side are for the most part unexplored and uninhabited; provisions for many weeks would therefore have to be carried up over passes from the Hermitage before any attempt could be made to scale Mount Sefton from the west.

I chipped off a bit of stone from the topmost rock of the mountain, so that Zurbriggen's words, "We will have the peak in our pockets," came true after all. We then roped ourselves for the descent, having remained on the summit an hour and a quarter.

A NIGHT ON MOUNT COOK.

[From Green's "High Alps of New Zealand."]

THE great problem we had hitherto longed to solve was: Could we get up Mount Cook? That question was now settled. A more anxious problem yet awaited solution: Could we get down?

On returning to the point where we had first struck the *arête*, we were obliged to turn with our faces to the ice and descend backwards, in order to keep a good grip. "Clink, clink," went the axes into the hard ice with a constant rhythm, and we kept time with our feet, step after step—down, down, down! This is far more trying work on the nerves than going up, and though Kaufmann [*] urged me now and then to take the steps faster, on reaching the highest rocks we congratulated ourselves at having descended so far at a very rapid pace. Here we paused for a minute to loosen some stones; a couple of the topmost bits I put in my pocket, the others we piled in a little heap on my pocket-handkerchief and Kaufmann's match-box, which were the only articles we could afford to part with, as memorials of our ascent.

These rocks of grey quartzite, weathering to a reddish-yellow, afforded no shelter whatever from the *heiter-wind*, which was steadily increasing in violence. The golden tint of parting day gleamed for an instant through the storm-clouds, giving a warm blush to the snow. There was no time to lose, so scrambling for a short distance down the rocks, in order to avoid the very steepest bit of the ice-slope, which lay at such a high angle that we had been obliged, when ascending, to cut hand-grips in it as well as steps for our feet, we once more took to the ice-steps, and went down backwards as before, making use of any available chink in the rock to hold on by. Kaufmann had cut the steps very far apart, and it was often rather difficult to find the step below and keep a secure grip at the same time.

The lower termination of this ice-slope was the worst bit of the whole descent. The ice thinned off over a ridge of rocks with a vertical fall of about 6 ft., and bad holding-ground below. We could cut no steps, and had kicked away all the grips coming up, and there was nothing to which we could attach our spare rope. The thought of this spot bore heavily on my mind so long as we were above it, and there was only dim twilight when we reached its brink. Kaufmann and I placed ourselves as firmly as we could, while Boss slipped over the edge, and though he used his axe with great dexterity, I felt an unpleasant strain on my hips before he could check his descent. Then came my turn. Kaufmann held the rope tight, slacking me down slowly, till I got my feet on Boss's axe. Kaufmann had no one to slack him down, so Boss stood up to him as close as he could with security, and let him down gently, while I jammed myself into the only crevice available.

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[*] The Rev. W. S. Green, M.A., had two companions—Ulrich Kaufmann and Emil Boss—both expert Swiss mountaineers.

To cross the *couloir* was the work of a few minutes, and as we gained the rocks on the opposite side night closed in. There was standing-room where we now were; but, exposed to the full brunt of the storm and the sheets of cold rain which beat down upon us, there was no likelihood of our being able to hold out for long. To descend the *couloir* and find some ledge within its shelter was imperative; but here a new difficulty presented itself: to avoid the danger of falling ice we had, when ascending, quitted the *couloir* near its upper termination and taken to the rocks, and now, in the dark, we could not find any rock-grips. Boss's mountaineering instinct came to the front, and, telling us to follow carefully, he went straight for the ice. There was no time now for us to make nice distinctions between degrees of danger. After cutting a few steps downwards he found grips on the rocks at the margin of the ice, and, when secure himself guided my feet. I must say, however, that once or twice I had absolutely no grip except by my hands; Kaufmann, I hoped, was keeping a good hold above, and though we could scarcely make out each other's figures against the rocks, so dark was it, we got down in safety and were once more in the ice-steps.

Our progress was now very slow, as it took all Boss's skill to find each step below him; yet we hoped soon to come to some crag upon which we might clamber, but for some distance the rock rose vertically. At last we found a ledge in the rock, and, climbing on to it, thought it might answer for our night-quarters. We took off our boots, and, wringing the water out of our socks, put them on again; and, refastening our gaiters, tried to feel as comfortable as circumstances would permit. But we soon began to shiver, for we were still exposed to the wind and rain, and my men said we hadn't a chance of holding out for the night in this situation. Kaufmann tried a little cleft near at hand, but a tiny cataract of melting snow pouring down the back of his neck did not seem to be a change for the better. The exploration of this ledge did not occupy many minutes, for a block of ice falling from above, and striking not three yards from where we stood, told us plainly it would not do, as at any moment an avalanche might come thundering down upon us.

By this time the moon, which was now near the full, had risen, and though we could not see it through the clouds, it gave us some faint light. Once more we took to the ice-slope, descended slowly to the lowest part of the rock-ridge, and, turning to the left beneath its shelter, succeeded in finding standing-room on a little ledge from which we scraped the snow. It was less than two feet wide, and sloped outwards, so that we had to hold on with our hands, and, as we were still over 10,000 ft. above the sea and about 5,000 ft. above the mean line of perpetual snow, it was not all that might be wished for a night's lodging. There was no choice, however, as for thousands of feet below there was nothing but steep and crevassed ice-slopes. Kaufmann went on to the ledge first, then Boss. I followed, and in this order we stood for the night. Sitting down, or even shifting six inches from the position we first occupied, was out of the question. Boss and I had one upward grip which served to steady us; Kaufmann found that he had none whatever, but now and then he rested his knuckles against the rock. There was no prominent crag to which we could hitch the rope and so make ourselves secure; but I dropped my axe into a cleft near my feet and let the bight of the rope hang over it. I could not tell whether it would bear any strain, so said nothing about it, wishing to avoid any false idea of security which would perhaps lead to a relaxation of vigilance—the great danger of our situation.

Producing a box of Brand's meat lozenges, which I had kept for a case of absolute necessity, I served one out all round three times during the night. More remained in the box, which we might have eaten, but I reserved them because of a horrible anxiety which was ever rising before my mind. The *bergschrunds* of the Linda Glacier had given us some difficulty. What if the thaw now going on should destroy the snow bridges and make them impassable?

Whatever ideas may exist as to the cessation of avalanches at night in the European Alps, all was different here; not a quarter of an hour elapsed without a distant rumble, or a thundering roar causing the rock on which we stood to vibrate. The warm north-west wind was of course the immediate cause; everywhere a rapid thaw was going on; the rain streamed down the rock and prevented the water with which our clothes were soaked from getting warm, and now and then a squall would swirl round the crags, bringing a deluge of rain with it. Strange though it may appear, our great hope lay in the continuance of the bad weather, for if the rain should cease and the sky should clear, radiation would set in and our chances of escaping frost-bite would vanish.

Through the early part of the night there was light enough to read a watch, but after finding how long the first hour seemed, on account of watching its flight, we agreed that we would not look at the watch again till we believed half an hour had gone by. We stamped one foot at a time to keep life in it, then slapped our legs and shoulders with one hand, holding on all the while with the other. At last the watch told us that four long hours had passed and that it was midnight. The storm howled among the crags as loudly as ever; the avalanches shook the mountain with their thunder; the hissing of the cold rain on the snow continued unceasingly; but all these sounds were blending into one monotonous hum in our ears. We were getting drowsy; it seemed impossible to keep awake. To give way to sleep for an instant would be to fall from the ledge; so our whole energies were devoted to trying to keep each other awake. We forced ourselves to keep on talking—we discussed politics, told stories; we sang songs; and though Boss regretted much that the tobacco was with the provisions, over 1,000 ft. below us, both he and Kaufmann congratulated themselves upon, at all events, having their pipes, which they sucked diligently at intervals, and, by sheer force of imagination, enjoyed several good smokes. In spite of all watchfulness, my feet would suddenly cease their stamping, when a poke from Boss would recall me to consciousness, and the arguments by which I tried to demonstrate that I was not asleep would completely awaken me and set me stamping more vigorously than ever. Then Boss would lean his forehead against the rock, and on getting a pinch from me in return would get through a good quarter of an hour in explaining how he had no notion of going to sleep. Boss and I stood facing one another, and over his shoulder I could see Kaufmann's dim figure marking time with such awful regularity that we once or twice suspected he was doing it automatically and might really be asleep, but he at once repudiated the base insinuation with contempt. In addition to my ordinary clothes I wore a sailors' blue guernsey, a warm muffler round my neck, a knitted cap or "Eugenie," made by a friend at Home, drawn down over my face, and a second pair of socks on my feet. Boss was similarly clad, except that both he and Kaufmann were without their waistcoats, and as Kaufmann had no "Eugenie" his hat was tied down over his ears with his handkerchief. Of course we all had mittens on our hands; but as the night wore on we got stiff from the cold, and the effort to keep awake became more and more painful. About 4 a.m. it was so dark that we could not see the watch, and at 4.30, not one moment too soon, came the first glimmering dawn of the 3rd March.

The light seemed to come very slowly, as the rain-clouds hung in heavy masses on the ice-slopes. Now and then we saw the cliffs of Mount Tasman looming ghost-like for an instant, and again all would vanish. I might have made a little sketch, or I might have taken down the reading of the aneroid, but all such thoughts were absent from our minds. Could we get down? Could we reach our provisions? Would our limbs do their wonted service? Could our hands clutch our ice-axes, which would be our only means of gaining a grip once we stepped off the ledge? These questions were more than enough for our benumbed brains.

At last the long nine hours were past, and at 5.30 it was sufficiently light to make a move, and there was a little glow of heat from the rising sun, so we crept cautiously into the ice-steps and resumed our descent. We moved one at a time, still descending backwards, Kaufmann and I holding on while Boss cleared the steps below, then I moved down, and so on again. Kaufmann's hands were badly blistered from the long spell of step-cutting he had had during the ascent. Following our track downwards through the fog the wide *bergschrund* of the Linda Glacier at last yawned beneath us. The snow was now very soft, so we drove the handles of our axes deep down, and approached the brink of the abyss cautiously. We looked into the blue depths, but the bridge which we had crossed by when ascending was gone! Fortunately, a little to the right, near to where the glacier broke up into *séracs*, a possible route across the crevasse yet offered itself, and Kaufmann, now taking the lead, crept on all-fours on to this bridge, while Boss buried himself in the snow and kept the rope tight against me, as I had of course to hold the rope and slack it out as Kaufmann made his way across.

It was a very rotten bridge, the chasm below seemed fathomless, but Kaufmann reached the other side in safety; and, as the slope on the lower side was away from the crevasse, he was a secure anchor for us as we crept across in like manner; and so, one great source of anxiety being removed, we breathed more freely. We soon struck again into our old track, and though the snow was horribly soft we trudged along at a good swinging pace.

We had not gone far, however, before we came upon the *débris* of a huge avalanche which had completely obliterated our track. The ice-blocks which had fallen from one of the hanging glaciers on the Tasman *arête*, were piled in wild confusion, and their angles being rounded off testified to the banging about they must have got in their descent. We had heard the roar of this avalanche, and we could not help congratulating ourselves on having stayed for the night where we did; for had we had another hour's daylight we might have got thus far in our descent, and if not swept away by this avalanche, or several others of like dimensions which we passed in succession, we should have been so alarmed by feeling ourselves exposed to them that we never would have stood our ground, and, moving onward in the dark, would undoubtedly have fallen into a crevasse. A guide who had once been my companion on a most delightful expedition in Switzerland thus perished on the southern side of Mont Blanc; and more than once I thought of him when a night on Mount Cook became inevitable.

We scrambled over the avalanche heaps, crossed crevasses, and trudged on downwards through the deep snow for another hour. The surface of the glacier looked so different that we mistook the place where we had left the provisions, and coming to one huge avalanche we feared that it had swept the knapsack away. Our hearts sank at the thought, but as we gained the top of the avalanche heap we were quickly reassured. There it was, all safe on the level below us, just where we had left it; ten minutes more—at 8.30—Kaufmann was unbuckling the straps, and we lost no time in discussing some cold duck and bread, both of which seemed excellent, though the latter was now twenty days old, and our mouths were sore inside from sucking the snow. However, twenty-two hours without food would make anything seem good, and as we sat on our axe-heads we realised the fact that we had not once sat down for the same length of time.

Lest we should get stiff we made but a short halt, and, feeling much refreshed, we shouldered our traps and were soon amongst the *séracs*. Here, again, avalanches had obliterated our track; the *débris* of one of these covered an area of at least 200 acres, and conveniently filled one large crevasse, which had caused us to make a detour the day before. In an hour we reached the Great Plateau. The weather now showed signs of clearing up, and gleams of sunshine shot through openings in the clouds, calling the avalanches once more into renewed activity.

One grand fall took place from the Mount Tasman cliffs not far from us. A large piece of glacier cracked off with a loud report and slid, like a great ship being launched, amidst a quantity of smaller pieces to the edge of the precipice, then toppled over, coming down on the glacier below with a deafening crash. Just as some great roller from the ocean, thundering upon the rocks, shoots upwards in clouds of snow-white spray, so the ice-dust spouted upwards like the sea-foam, and from its midst great pieces of ice flew to long distances, and, falling, furrowed up the snow on the surface of the glacier. The first crash gave place to a continuous rumble, and then out from beneath the cloud of dust the great broken-up mass of the avalanche came on towards us with apparent slowness, though, from the way in which the ice-blocks danced and seethed on its surface, it was evident that distance alone made its motion seem slow; nearly half a mile was traversed ere its energy was wholly expended.

An hour's tramp across the great level snowfield brought us to the domes of ice overhanging the lower spurs of the mountain. We tried to avoid this ridge by turning its shoulder above the Hochstetter Glacier, but meeting with *séracs* which formed a complete barrier, we were forced to follow our former route, and, though having to ascend once more was not an agreeable sensation, we soon gained the top of the ridge, and looked out for our tracks, or a mark which we had made to guide us in our descent. All marks, however, were gone; and, after making one wrong move, we finally discovered the way down the rocks and got on to the glacier at the spot from which we had admired the sunrise during our ascent. The snow on the glacier was as soft as flour; we sank into it waist-deep, and, as it was lying on very steep ice, the danger of our going down in an avalanche made it advisable to abandon our former route, and seek a safer line of descent close to some very remarkable isolated rocks which stood like sea-worn pillars out of the snow. We then made a short glissade, and at 1 p.m. reached the rocks where we had left our rugs.

A halt of half an hour gave us time for a comfortable meal, and the tea which we brewed seemed the most delicious that I had ever drunk. As our clothes were still wet, and rain fell in frequent showers, we delayed no longer than was necessary, but, strapping up our wraps, resumed the descent. Tired as my men were, they would allow me to carry nothing, but loaded themselves with the rugs, &c. I suggested tumbling the whole pack down a snow *couloir* which led to the bottom of the Hochstetter Glacier, but they argued that they would lose more time in picking up the bits than in carrying the pack down. The rocks were in many places so loose and bad that we had to keep on the rope, and, as we had time enough, we halted occasionally to rest. On the way down I secured a photograph of Mount Cook, from which the clouds cleared between the showers. As this would probably be our last opportunity, we collected a goodly supply of edelweiss; it was growing in the greatest profusion, and I selected some tufts which had gone to seed, in hopes of propagating it at home. Kaufmann made up a large bundle of it in his handkerchief, but, unfortunately, he hid it so safely between the boulders at our camp, lest the keas or wekas should interfere with it, that when we looked for it on the day of our departure it could not be found. The ridge seemed to get longer and longer as we descended, and as it would not do to be again benighted, we took off the rope, having had it on for thirty-six consecutive hours, and reached the Tasman Glacier at 6 p.m. Scrambling over the moraine, we reached the ice, and then went along at a good four miles per hour.

It was getting dusk as we reached the moraine near our camp, but at 7.30 we were at the tent, and our long expedition of sixty-two hours was over.

CHATHAM ISLANDS.

[Specially abridged for the New Zealand Official Year-book from an article by R. S. FLORANCE, Esq., Stipendiary Magistrate at the Chatham Islands.]

AMONGST the most important of the outlying islands under the Government of New Zealand is a group known generally by the name of "Chathams." The Moriori people called these lands "Rekohu," and the Maoris named the main island "Wharekauri." They lie between the parallels of 43° 30′ and 44° 30′ south latitude, and the meridians of 175° 40′ and 177° 15′ west longitude. It is reckoned that they are distant about 415 nautical miles east-south-east from Wellington, and 466 from Lyttelton. Napier is the nearest port in a straight line drawn from land to land. Discovered on the 29th November, 1791, by Lieutenant W. R. Broughton, in command of H.M. brig "Chatham," they have ever since been considered a British possession. This discoverer landed at Kaingaroa, on the northern side of the main island, and, after displaying the Union Jack and taking possession in the name of His Majesty King George III., named it after the Earl of Chatham. Pitt Island, called by the Natives "Rangiauria," and Mangere, lie to the south-eastward of the main island, and contain together about 16,000 acres, of which a very large proportion is first-class land. Besides these there are several unimportant smaller islands lying in the vicinity, which are periodically visited by the Natives for the purpose of getting birds.

The largest island contains about 222,490 acres, of which about one-third is covered by brackish water. Whanga Lagoon is estimated to cover about 46,000 acres by itself. Besides this there are at least six freshwater lakes, some of them being very beautiful, and ranging from 100 to 500 acres in extent, of which Huro, Rangitahi, Patariki, Marakapia, and Tenant's are the most noticeable and attractive from a picturesque point of view. Of the mountains, it must be said that they are not very high; Waihere, in Pitt Island, is the highest elevation, rising to 971 ft. Mount Pipitarawai, on the main land, rises to 930 ft., and is the highest point in a backbone bearing the same name, which runs in a north-westerly to south-easterly direction generally, and slopes gently northwards and eastwards. From Cape L'Eveque, in the extreme south of the island, to Cape Fournier, on the extreme south-east, the coast is very rough, having cliffs from 600 ft. to 700 ft. high, with deep gorges. The rest of the coast-line is either sandy or basaltic in its character. Here and there on the north rise hills to 500 ft. and 600 ft., covered with native forests on most parts. A large part of the uplands of the main and Pitt Islands is swampy in character, and the uncultivated open country is covered with fern, and here and there patches of sand. There is no doubt that these islands are capable of carrying a greater population than they now possess. Their salubrity cannot be gainsaid, and they should in the near future become a favourite health resort.

CLIMATE.

This is said to have changed considerably in modern times. The average annual rainfall taken at about 100 ft. above sea-level has been found to be 30·4 in. In the summer months a fair supply of rain generally falls, and in the winter, although it rains frequently, the fall cannot be said to be excessive. Taking a year through there are only very few days without sunshine. More rain falls at night-time than in the day. The prevailing wind is from the south-west, which is rather violent during the equinoxes, and yet bracing and healthy at all times. Vegetation in unsheltered positions appears to suffer from the excess of salt borne in from the ocean by this wind. The north-west is, as on the mainland of New Zealand, slightly enervating, and the north-east chilly. Temperature ranges from 33° Fahr. in winter to about 75° in summer. No extremes of heat or cold are experienced, as on the mainland. Earthquakes, lightning, and tempest are almost unknown—no earthquake having been felt for many years, or earthquake wave since 1868. The slight fall of snow observed in the last two years has been considered phenomenal by the oldest inhabitants. Vegetables of all kinds can be grown winter and summer alike, as only very slight frosts are experienced. As a rule everything that will grow on the mainland of New Zealand will grow here, but tropical plants would not thrive, at any rate in exposed positions. There is very little difference in the north and south of the island. In Pitt Island the higher lands face the southward, and make the settlement on the north-eastern sides slightly warmer than Chatham Island. For water, the Pipitarawai Range supplies most of the streams, which flow easterly and south-westerly along the whole watershed. The water-supply on the slopes of this range is vastly superior to that in e north and north-west, where the land is much drier and more liable to summer drought. Roads have been and are still being surveyed and taken through both Chatham and Pitt Islands, though not metalled yet. Internal communication is assured on horseback at all seasons of the year.

HARBOURS.

The only port of entry at the present time is Waitangi, Kaingaroa not having been treated as such for years past. There is a small jetty here. Goods are landed by boat, the steamer being anchored a quarter of a mile off. The other port is known as Whangaroa, and is reported to be perfectly secure in all weathers. Besides these ports there are at least twelve boat harbours round the coast of the main island.

HISTORICAL.

There is a well accepted opinion that at one time the Moriori population of these islands amounted to no less than two thousand. Although it is the province of ethnology to treat of these ancient people, a few words may not be deemed out of place here. Their very early history is purely traditional, but much can be verified by their story as told by some of their living descendants, by remains, and by comparative philology. Suffice it to say they were anterior to the Maoris; submitted to patriarchial government; nomadic; subsisting chiefly on edible roots, fish, and birds; pantheistic; having one wife; fond of their offspring; peaceable in their nature; unskilled in the manufacture of weapons of war; not caring to cultivate their lands, and speaking an agglutinative language very inferior to the Maori. Their subjugation and subsequent reduction to slavery and death by the Maoris who were brought over from the mainland of New Zealand in large numbers in a brig they had seized at Port Nicholson, and which was commanded by Captain Harewood, about the end of the year 1835, is a matter of history.

Christianity was introduced into Chatham Islands, nearly sixty years ago, by two Moravian missionaries, of whom Mr. Engst still survives, and resides here, enjoying wonderful health considering his great age (eighty years). With the advent of the missionaries European occupation may be said to have begun, and continued slowly, till in 1864 the Census returns showed a white population of 61 at Chatham and 25 at Pitt Island. In 1896 there were 234 persons of European descent—192 on Chatham, and 42 on Pitt Island, with 179 Maoris and 20 Morioris. At that time the Natives had 14,350 sheep.

LAND.

A large part of the land is in the hands of the Natives. Apart from the lands held under Native custom, 2,000 acres have been reserved, and 2,000 given by the Maoris to the Moriori people, of whom about eighteen now remain, and only one family is full-blooded. Taking away from the 222,490 acres of Chatham, one-third (74,163 acres) of water, the balance of land remaining is 148,327 acres. Of this area it has been roughly estimated that 105,000 acres are occupied by Europeans, and about 43,000 acres by Natives, 34,800 of which is totally unimproved.

A valuation was made under the Government Valuation of Land Act in 1898. From this it would appear that there are about thirty holdings, covering 105,219 acres, of occupied lands, and of which 67,337 acres are held under freehold tenure under the Land Transfer Act, and 37,882 acres as leasehold, partly under the Act and partly under Native Land Court titles or otherwise. This would leave a balance of land unoccupied or untenanted of 43,108 acres, but many of the leasehold holdings will soon fall in, which will increase the total.

Subjoined is an approximate statement of the acreage of holdings and value of improvements:—

Tenure.	Acreage. Acres.	Improvements. £
Freehold	67,337	27,266
Leasehold	37,882	6,683
Native	48,990	4,734
Totals	154,209	38,683

INDUSTRIES.

Sheep-farming forms the leading industry of the Islands, but this is combined with the cultivation of cereal and root crops for winter feeding. It is estimated that Europeans possess about 70,000, and Natives 14,600 cross-bred sheep. The Romney sheep is supposed to be most suitable. Sheep thrive wonderfully, and the usual diseases cause little trouble. The annual production of wool may be put at 1,500 bales.

A cheese factory company has been formed, and will begin business at Waitangi shortly. This industry may, with increased shipping facilities, bring others, such as bacon-curing, and possibly the manufacture of butter.

No better dairying country exists than is to be found in some parts of Chatham and Pitt Islands, where mild climate and rich pasture are to be found.

Large beds of oysters and sponges lie near the shores, and an effort is being made to utilize the sponges.

The only means of communication with the mainland being the bi-monthly steamer, opportunities of disposing of the Island products are very limited.

FAUNA.

The very few animals peculiar to these islands have been long extinct, and their remains are eagerly sought for. The red deer introduced some years ago by Mr. L. W. Hood are reported to have betaken themselves to the recesses of the forest on the Pipitarawai

Range, where their progeny have been seen by some of the settlers on the eastern coast. Wild horses, cattle, sheep, and pigs were once pretty numerous; those remaining have been driven back into the interior of the island. Mr. Hood imported skylarks, swans, and starlings. Blackbirds and thrushes are believed to have come unaided from the mainland. Game, in the shape of swan, duck, and Californian quail abounds. There are no rabbits nor hares, importation having been prohibited. All the native fish found in the seas of the mainland are to be got. Eels and flounders abound at Awapatiki, and in most of the inland lakes.

FLORA.

The vegetation very much resembles that found upon the mainland, but the height of the forest trees nowhere exceeds 50 ft. At one time great portions of the flat swampy land were covered with *Phormium tenax*, but the result of stocking has been to destroy this, and now only a few patches of flax remain where cattle and sheep find it difficult of access. The karaka or kopi grows very generally on both Chatham and Pitt Islands. The habit of many trees of these islands bearing identical names to those on the mainland is in many instances slightly different, as, for instance, the kowhai, matipo, koromiko, and whakataka. Many varieties of fern and lycopodium are to be found in the bush and on the clear land. In uncultivated places the piripiri, or burr, is very common and widespread, causing a great deal of trouble to sheep-farmers; but it can be easily eradicated by cultivation. The most beautiful of the indigenous island plants is commonly called by the Chathams people "the Chatham Island lily." It is really a kind of *Myosotis*, and has dark glossy leaves and bright-blue flowers, which are in their greatest luxuriance about the months of October and December. A specimen of the plant has been seen bearing white flowers. A very handsome shrub is found which is supposed to be a sort of heath, bearing white and crimson berries. The nikau palm and kawakawa are widely distributed, more especially at Pitt Island, where the former attains large and grand proportions nearly all over the island. There are about twelve orchids, mostly terrestrial, some of them highly scented and delicate in form.

The native herbaceous plants suitable for fodder are fast disappearing, but readily take hold again if kept clear of stock. When the lake water evaporates and retires in the summer season a native herbage springs up immediately, upon which sheep feed and fatten readily.

The experience of the mainland is identical with that of these islands with regard to deforesting. As soon as the native bush is felled in patches, for cultivation or artificial grassing, the winds get in and the forest declines gradually from the base of operations. The timber is, when dry, used all over the islands for firewood. Coal is rarely, if ever, used. Akeake is the best timber for fencing purposes, but is being fast exhausted.

NOTICEABLE FEATURES.

In many places in the forest the older trees are found to be marked with rude figures resembling skeletons, which are not understood. On the shore of Whanga some very remarkable carvings in the solid limestone rock are to be observed, apparently hieroglyphical writings. They are supposed to have existed before the Moriori people arrived. On the south-east coast remarkable diorite columns tower above the observer to the height of 500 ft., like giants guarding that coast from invasion. The remains of past ages of peopling are to be found everywhere, and the skeletons of Morioris are very readily distinguishable from those of Maoris, on account of the positions of the bodies. Where sand has been chosen as a burying-ground the skeletons are to be found exposed in great numbers.

The country generally gives the appearance of being of volcanic origin. Sir James Hector says that several places on the main island show excellent quartz, which should be prospected for gold; but this has not been done. There are indications of coal deposits in the north and south of the island. Pitt Island can boast of scenery that may be described as grand compared with the scenery of Chatham, which is not nearly so imposing.

A SKETCH OF MAORI MYTHOLOGY, COSMOGONY, ANTHROPOGENY, PERSONIFICATION OF HEAVENLY BODIES, ETC.

[By ELSDON BEST.]

ACCORDING to the ancient Maori belief, Rangi and Papa, or heaven and earth, and through them the heavenly bodies, trees, water, stones, and many other organic and inorganic bodies, are all descended from primal Chaos, which obtained long before man was, and before the genesis of the Maori cosmos.

The origin of the earth and sky, of man, of stars, &c., is given in the form of a genealogical table, the early names in which would appear to have been evolved by a forest-dwelling people of the remote past, inasmuch as many of them have been taken from expressions signifying the parts and growth of trees.

In this table we perceive how the growth of the universe has been likened to the growth of a tree. It is by no means safe to assume that this is an outcome of tree worship, but rather that the respect in which the more valuable trees were held by the Maori was the result of the belief that they are of celestial origin, the offspring of Tane, the son of Heaven and Earth. Other names in this table are: Te Kore (void, or nothingness), Te Po (darkness, or primal gloom which obtained before Light was).

Light and Sound strove against Darkness and Silence. The powers of Darkness were enfeebled, and Light shone across the world. Then the children of Rangi and Papa (heaven and earth) were born, but doomed to dwell in darkness, for at that period the sky lay flat upon the earth, and no light came between them. Even so the children of the Earth Mother arose and sought to force on high their sire, Rangi the lordly sky. It was Tane who succeeded in this great task, hence man dwells in the light of day.

Rent apart were our primal parents, but never have they forgotten their love for each other. When you see the rain falling from the heavens it means that Rangi is weeping for his wife. Papa. When the white mists arise from forest and range, that is our Earth Mother sighing for her old-time love.

And the children of Earth and Sky held the world. These were Tane, Tu, Rongo, Tangaroa, Tawhirimatea, Wainui, and Tangotango. Tane is the parent, origin, tutelary deity, or personification of trees and of birds. Tu is the supreme god of war, the personification of war and evil passions. Male children were dedicated to the service of Tu. When Tu the Red Eyed turns his awful visage upon mankind, then war parties are abroad—wailing, desolation, and the fierce joy of slaughter fill the land. Rongo is the god of peace and of cultivation; he is invoked in peacemaking ceremonies. Tawhirimatea is the personification of gales; and Wainui is the mother of waters, the seas, lakes, and rivers—all these are hers. While Tangotango is the origin of night and day, he changes night into day and day to night.

Tangaroa is the origin of fish, the personification of the tribes of the ocean, and of lakes and rivers.

And the children of heaven and earth are still with us. For Tangaroa lies beneath the curling waves, and Tane dwells within lone forest depths. Tu turns his fierce eyes upon mankind, and war prevails; while Tawhirimatea wails upon the mountain peak, and Rongo directs the husbandman. To each his task, to each his realm.

In many of these cases the term "god" is not correct, and should not so be used. Primitive man ever seeks to personify everything that is brought before his understanding, but it by no means follows that he worships such personifications. The Maori assuredly did not.

Tane is the parent and guardian of forests. No tree may be felled for canoe or house timber until are performed the strange rites known as the *ahi-purakau* and *tumuwhenua*, and invocations are repeated in order that Tane may not resent the destruction of his children. Tane protects the forest and the denizens thereof, and preserves the *mauri* (sacred life principle) of the forest. Should the sacredness of the forest be desecrated by man in any way, then the talisman which is imbued with the life principle of the forest becomes virtueless, and birds will desert that forest.

It was the wife of Tane who descended to Hades, and there took the title of Hine-nui-te-Po (Great Hine of the night, or rather of the realm of darkness, or of oblivion). Te Po is the Maori Hades, where the spirits of the dead descend to. Thus Hine became Queen of Hades, a place occupied by Miru in Rarotongan mythology. Her task is to drag mankind down to the realm of death.

The heavenly bodies, the sun, moon, stars, as also phosphorescent light (*hinatore*), are the offspring of Tangotango and Wainui. These are known as the Whanau Marama, or Children of Light.

"Let there be Light!"

The gleaming of the Children of Light is ever seen in the heavens. Should it be quenched—that is the end of man; the earth shall no longer know man.

It was Tane who placed the sun, moon, and stars on high, in order to adorn the breast of his father, Rangi, and light the world both day and night. Tane searched far, and at last beheld the children of Tangotango; and, behold! they were the Whanau Marama, the shining ones. Then he came unto Tangotango and said, "How brightly gleam our children, the shining ones." And Tangotango asked, "For what purpose?" Tane replied, "To adorn the breast of our father, to lighten us in our darkness, that light may ever shine upon the breast of our mother." Even so Tane took Hinatore (phosphorescent light) and placed it on high, on the breast of Rangi. But the black night was unpierced and darkness held fast. He then procured Nga Whetu (the stars) and feeble rays glimmer across the world, but the broad light came not. Then the moon (Marama) was obtained, but still Tane was not satisfied. Once more he returned and said to Tangotango, "Give to me yet again: It is Ra (the sun) I would have, the greatest of the Children of Light." But Tangotango was angered, and sent the fierce sun, bristling with glaring rays, that Tane might be destroyed. Tane warded off the fierce rays, and raised the sun on high. And the host of the Whanau Marama clung to the breast of Rangi the Father—and so Light was.

Tane had many wives, but they were not women of this ordinary world. They produced trees, birds, and insects. Then Tane found woman of this world who bore him, Hineahuone (the earth-formed maid), who had Hine-titama. Tane took the latter to wife, and when she discovered the relationship she fled to the underworld and became Queen of Hades. (See *ante*.) Tane sought her, but she sent him back to this world, saying, "Return, Tane, to the world of light, and rear our offspring in the light of day, while I remain here to drag them down to darkness and to death."

Another legend states that Tane married a daughter of Tiki. It was Tiki who formed the first man, and having accomplished that task he sought to form a woman. He formed two mounds of earth. One was Tuahu-a-te-Rangi (the altar of the sky). It represented life. The other was Puke-nui-a-Papa (great hill of earth), and it represented sin and death. The *tira ora* (wand of life) was placed in the former mound, and the *tira mate* (wand of death) in the latter. Then Tiki, having performed certain rites, cast down the wand of death, and from Puke-nui-a-papa produced woman, who sprang from sin and death, and Te Po (Hades, the world of darkness).

Te Ra (the Sun).

The Sun has two wives, named Hine-takurua (*takurua*, winter) and Raumati (summer). These are the personified forms of summer and winter. To Raumati was born Tanerore (the quivering of heated air, as seen in midsummer). To Hine-takurua were born sea-birds. The task of Raumati is the cultivation of food; that of Hine-takurua the taking of fish. The Sun goes to the ocean and dwells with Hine-takurua during winter. In the month Otoru (of the Maori year) the Sun returns and dwells with Hine-raumati, who cultivates the kumara (sweet potato). It is then summer.

This article might be continued indefinitely by referring to the general personification or allegorization of natural phenomena, of fire, &c., which obtains in Maori mythology, together with the doings of the heroes or demigods of old and the innumerable sacred rites of the ancient Maori. As a mytho-poetic people the Maori can assuredly claim to rank with any nation, ancient or modern, of whose system of mythology we have any knowledge.

PART IV.—DESCRIPTIONS OF LAND DISTRICTS.

THE AUCKLAND LAND DISTRICT.

G. Mueller, Chief Surveyor.

Introductory.

The Auckland Land District covers about four and a half degrees of latitude, extending from 34° 30′ to 39° S., its greatest length being about 365 miles, from the North Cape to the 39th parallel, south of Lake Taupo, while its greatest width is about 180 miles. In the peninsula north of Auckland, indented as it is on either side by harbours and arms of the sea, and with a mean width between the Pacific Ocean and Tasman Sea of little over forty miles, the range of temperature is remarkably small. The thermometer seldom registers above 80° in the shade in the middle of summer, whilst the heat is always tempered by a cool breeze, bringing the mean summer temperature to under 70° in the shade. The frosts are hardly worth mentioning, as the minimum register is seldom below 40°; but south of Auckland sharp white frosts occur very often, more especially beyond 38° of latitude, and snow lies upon the summits of some of the highest hills or mountains in winter.

Physical Features.

This land district may be said to have no real mountains, as the most prominent peaks of the several scattered ranges or hills seldom exceed 3,000 ft. in height above the sea-level, an altitude just enough—south of 38°—to clothe the last 1,000 ft. with snow in the depth of winter. North of Hokianga and the Bay of Islands there is one well-defined range of hills rising to a height of 2,463 ft.; whilst south of these places, and extending to the Wairoa River on one side and the Whangarei Harbour upon the other, the country is all more or less broken into ranges from 1,000 ft. to 2,000 ft. in height, with valleys between. The next really well developed main range lies within the Coromandel and Thames Peninsula. With a length of over 150 miles, it has an average height of over 2,800 ft., commencing with Moehau, or Cape Colville, 2,935 ft.; next, Te Aroha, a peak of 3,176 ft.; and ending at Weraiti with a height of 2,527 ft. There are two other well-defined ranges—namely, Tawairoa and Hauturu—lying between the West Coast and the Waipa basin, with their highest peak at Pirongia, which rises to 3,156 ft., and is often snow-capped. There are other ranges forming the watershed between the basins of the Waikato and Waipa Rivers, and dividing both from the streams running into the western side of Lake Taupo. Their highest peak is Pureora, rising to 3,793 ft. The eastern side of the land district is occupied by a very broken, forest-clad country, known as the Urewera country, the average height of which is about 2,500 ft. It is practically unexplored, and, being still in the hands of the Natives, is not as yet available for settlement. To the east of Lake Taupo lie the Kaimanawa Ranges, of about 4,500 ft., and generally open on the ridges, with valleys clothed in beech forests. Nearly the whole of the Auckland Land District is indented on both coasts with harbours and arms of the sea, forming a cheap and easy means of access. Of rivers, properly so called, there are only two of any great length—namely, the Wairoa and Waikato. The first empties itself into the Kaipara Harbour, a large arm, or rather succession of arms, of the sea, giving hundreds of miles of inland water-carriage to all parts of the Counties of Hobson, Otamatea, Rodney, and Waitemata. This river is navigable from its mouth to its junction with its tributaries Wairua and Mangakahia, a distance of ninety-one miles from the sea, and for forty miles it is navigable for ships of large burden. The River Waikato has a course of 200 miles, measured from its source in the Ruapehu Mountain through Lake Taupo to the sea on the West Coast. It is navigable for river-steamers for seventy-five miles from its mouth, and its tributary, the Waipa, for twenty miles from its confluence with the Waikato at Ngaruawahia. Another river—the Thames, or Waihou—though of no great length, affords a valuable means of inland water-carriage, and is navigable for small steamers for twenty-five miles. Generally speaking, every part of the district has an abundant water-supply, now and then lessened for a short time at the end of a very dry summer.

Plains.

Of plains proper, this district has only the stretch of country called Kaingaroa, extending from the eastern side of Lake Taupo towards the Bay of Plenty, all more or less of a pumice formation; the valley of the Thames, and the delta between the Thames and Piako Rivers, which is generally level, the quality of the soil varying very much in different parts; and the Central Waikato basin, already thickly settled. Here and there in the North there are level plateaux of volcanic soil, more or less densely wooded, and along the main rivers there are stretches of level country, but there are no large plains of alluvial soil such as the Middle Island can show.

Lakes.

Of these, which add so much to the scenery of a country, this district possesses a fair share, there being eight principal lakes, with some twenty or more smaller ones. To the north of Auckland, in the Bay of Islands district, there is only one lake of any size, called Omapere, three miles by two miles, an old crater. In the Waikato are Lakes Waikare and Whangape, the first six miles and a half long by three miles across, and the second five miles by one mile. These lakes are generally covered with numerous wild swans and ducks, and, being both connected with the Waikato River by navigable creeks, form a convenient waterway for transport of goods to settlers living around their shores. All the remaining lakes of large size are within the watershed of the Thermal-springs District, and are mostly from seven to eight miles long, and from three to six miles wide, except Taupo Moana, the queen of the North Island lakes, which is twenty-five miles long and eighteen miles broad, with a depth of 500 ft. The scenery round its western shore is of the most romantic kind.

Forests.

The greater part of the Auckland Land District has been covered in the past with dense forests, which are now fast disappearing under the axe of the settler and being transformed into rich pasture-land. The only really good Crown lands fit for settlement in the North are still all covered with forest, and must be cleared and sown before any returns can follow. The area of forest land in the Auckland District at the present time is about 1,800,000 acres north of Auckland, and 3,420,000 acres south of it. The forests contain a mixture of trees of all kinds, from the giant kauri to scrubby tea-tree or manuka, but all the bush is useful for building, fencing, and household purposes, or at any rate may be converted into charcoal for sale. Of the giant kauri (the most valuable tree in New Zealand) great quantities, worth as much as £400,000 per annum, are being yearly cut, and exported or used for home consumption. To give some idea of the size of these trees, and the amount of timber contained in them, it is estimated that upon the Crown land to the north of Auckland, in the Counties of Hokianga, Hobson, Bay of Islands, and Whangarei, there are still remaining 498,000,000 feet, of a value, as the timber stands, of £498,000.

Soils.

With respect to the soils of Auckland, nowhere in New Zealand within such short distances is there such a diversity in the quality—a distance of half a mile often makes all the difference between rich alluvial and barren pipeclay. To the north of the Bay of Islands and Hokianga the lands are chiefly clay and sandstone, with here and there a volcanic area intervening. In and about the valley of the Mangonuiowae River, in the Hokianga County, there is some of the richest alluvial soil in the district; and, taking the whole Crown land remaining to the north of a line between the Hokianga and Bay of Islands Harbours, the really available good land fit for settlement would be about 40,000 acres. There are large areas outside of this which will carry good grass and feed one or two sheep to the acre, after clearing and laying down in grass; and there is also land highly suitable for fruit-growing. South of Hokianga, and between that place and the Wairoa River, the soil is, generally speaking, very good, being both volcanic and alluvial. Here the Crown has probably 150,000 acres of such land fit for settlement. Immediately south of the Bay of Islands, and extending thence to Whangarei, the soil is, for the most part, clay lying upon sandstone or marl, with alluvial flats in the bottoms of the valleys; but these are, as a rule, very narrow. Within the Puhipuhi State Forest there is an area, say, of 16,000 acres, more or less, of volcanic soil. Approaching Whangarei, at Hikurangi, the limestone crops out, overlying coal-deposits, and round Whangarei itself the soil becomes a rich volcanic, in a high state of cultivation. South of Whangarei Harbour, and from thence to Auckland, the Crown lands generally are of a broken character, with soil varying from alluvial swamps—as in the case of the Tokatoka Swamp of 16,000 acres—to the limestone areas round Maungaturoto, the sandstone and clay lands of Rodney County, and the poorer clay lands lying north of the City of Auckland, which have, however, proved eminently suitable for fruit-growing.

For about 200 miles south of Auckland the land (with the exception of the Cape Colville Ranges) is, generally speaking, far less broken, and gradually opens out into large tracts of level country in the Waikato and Waipa basins. Immediately south of Auckland the soil is rich volcanic until it is gradually superseded by the prevailing clays; the greater portion of Manukau County, for thirty miles south of Auckland, may be classed as pastoral, and is under occupation as such. The Crown areas available for settlement—say, 16,000 acres—are chiefly in the Otau Parish, varying from volcanic clay to ordinary clay land, forest-clad, and well adapted for pastoral purposes. In the Counties of Waikato, Raglan, Waipa, Piako, West Taupo, and Kawhia, there is a still greater diversity of soils; Raglan County contains large areas of good limestone country, broken, but with rich black soil, and carrying most luxuriant grass. The lower Waikato country consists of clay soil and extensive swamps, almost undrainable, but at a distance of eighty miles from Auckland is found a flat and undulating country, lying partly within the Waikato and Waipa basins, and partly within the valleys of the Piako and Waihou Rivers, formed mainly of alluvial deposits of rhyolite sands brought down from the volcanic districts. In the Kawhia County there are some 300,000 acres of excellent limestone land, a large portion of which is heavily timbered, with numerous warm valleys. Most of this land has now been acquired by the Government from the Native owners, and is being opened for settlement. Beyond this there is a large stretch of country consisting alternately of open valleys and forest-clad hills, a fair proportion of which is good land, both pastoral and agricultural. The County of Coromandel, with portions of Thames and Ohinemuri Counties, is chiefly devoted to the mining industry. The soil is nearly all clay, the land very broken, but suitable for pastoral purposes if cleared of the dense forest that now covers it. The western portion, however, of the Thames and Ohinemuri Counties contain large areas of alluvial and swamp lands, now in the hands of the Crown, but, through want of drainage, not yet available for settlement.

In the County of Tauranga, the clay lands extend from Te Aroha Mountain to Katikati entrance, changing, near Tauranga, to sandstone and black pumice soil of rich character, which improves towards Te Puke and Maketu, where the land is all good, and more or less volcanic. In Whakatane and Opotiki Counties there are very extensive swamps, of which large portions are drainable, and back from the coast seven miles or so are large areas of Crown lands, broken and forest-covered, opened ready for settlement. The soil is chiefly clay or light loam, with alluvial flats in the valleys, and all well watered. This kind of country extends to the boundary of the land district. The coastal lands are nearly all alluvial flats in a high state of cultivation, and the settlers mostly well-to-do.

Review of Soils: Uses and Returns.

Briefly to set forth the capabilities of the Crown lands in the district, it will suffice to say that north of the Bay of Islands and Hokianga the land is suitable chiefly for two classes of persons—the gum-digger, and the fruit-grower or small farmer. The former has the range over large areas of Crown lands upon paying a small fee, and his earnings average from 5s. to 10s. a day. As for the latter, in and around Hokianga, with its 250 miles of water-frontage, almost anything can be grown, from the tropical banana to the more prosaic potato, whilst oranges and lemons flourish side by side with all kinds of apples, pears, and plums. Wheat does fairly well, and maize gives a return of 50 to 60 bushels an acre. Sheep also thrive; and most of the lands, when properly grassed with artificial grasses, will carry two or three sheep to an acre, but ordinary rough-grassed lands only one and a half to two sheep per acre. The Messrs. Williams, at Pakaraka, are feeding four sheep to the acre upon land sown with furze. The clearing of forest lands, ring-fencing and grassing them, will cost about £3 to £3 10s. per acre. The same remarks apply to the Bay of Islands and Whangarei, and to the country as far south as Auckland. Round about Whangarei district, and under similar conditions of culture, the average return for good agricultural or pastoral lands would be fully 12s. an acre per annum. South of Auckland, throughout the Waikato, Piako, Waipa, and Raglan Counties, and thence south to the district boundaries, the land is both agricultural and pastoral. All the cereals do well, wheat averaging 27 to 30 and up to 40 bushels per acre, and oats 26 bushels per acre. Potatoes average from 5 to 7 tons per acre. Dairy-farming is carried on, yielding (upon well-cultivated farms) a net profit of 15s. to 20s. an acre per annum; whilst sheep-farming yields a profit of from 5s. to 7s. 6d. a sheep per annum on very large estates; allowing for greater losses from disease, &c., the average return would still be 4s. per sheep. The cost of clearing fern and scrub is generally from 7s. to 10s. an acre, and laying down fern land by surface-sowing and harrowing, about 17s. an acre.

The seaward counties of Tauranga, Whakatane, and Opotiki are both agricultural and pastoral, growing wheat and maize alike to great perfection. In fact, these counties, upon their alluvial shores and uplands, grow the greater portion of the maize produced in the district, and from the ports of Whakatane and Opotiki in one year some 34,000 sacks have been exported. In these counties the average yield of wheat is from 22 to 25 bushels per acre, oats about 29 bushels per acre, and maize 45 to 60 bushels per acre. It is quite possible within this district to select land early in the winter, fell and burn off by the ensuing summer, sow in grass in the autumn, and put on stock within twelve months from selection.

Rainfall.

The rainfall during the year averages about 39 in., the greater portion of which as a rule, falls between the 1st of May and 1st of November, or during the winter and spring months. Owing to the constant changes of wind, caused by the configuration of the coast-line, the shortness of the distance between the two coasts, and the influence, greater or less, of the trade-winds, it is quite common for one neighbourhood to have double the rainfall of another, even though the two be only twenty miles apart. Droughts of more than a couple of months are practically unknown, and grass is always abundant.

Winds.

One of the chief means whereby the great healthiness of the climate is maintained is the constant presence of fine breezes, blowing both summer and winter, the prevailing winds being north-east and south-west, and very seldom passing into really heavy gales. In the middle of summer, the sea-breeze during the day and the land-breeze at night are almost unvarying.

General Products and Industries.

Timber.—The vast forests of kauri and other valuable trees have given this district the foremost place for production and export of timber. There are many and sheltered harbours for shipping, while streams and rivers without number form convenient highways for conveying logs to the mills or ports. Some idea of the extent of this industry may be given by quoting from the official returns made at the time of the last census. There were then forty-nine steam sawmills situated in various parts of the district, with engines of a total of some 2,000-horse power. These mills employed over a thousand men, and produced yearly some 80,000,000ft. of sawn timber, valued at £301,328; of timber resawn into flooring, skirting, &c., some 21,000,000ft., valued at upwards of £91,000, not to mention posts and rails, mouldings, sashes, and doors. Besides this output, in the remoter parts of the district large quantities of timber are hand-sawn. The durable puriri is converted into railway-sleepers, for which there is a great demand, and the totara is largely sought after for telegraph-posts and wharf-piles.

Kauri-gum.—The most unique production of this portion of the colony is kauri-gum, obtained for the most part from the country north of Auckland. It is formed by the hardening of the exuded turpentine from the kauri tree, and is dug out of ground from which the forest has been burnt off. The Royal Commission appointed in 1893 elicited the fact that the procuring of the gum gave employment then to no less than 6,897 persons. Last year 11,116 tons were exported, valued at £607,919. The kauri-gum is extensively used in the manufacture of varnish, and also for glazing calico. Nearly two-thirds of the varnishes in the market are produced from this gum. The average earnings of a digger may be taken as from £1 7s. to £1 10s. per week.

Flax (*Phormium tenax*).—An industry, which is now assuming large proportions, is the conversion of the broad leaves of the *Phormium tenax* into marketable flax suitable for the manufacture of rope, twine, mats, mattresses, and numerous other articles. The flax-mills are scattered over different parts of the district, as near rail- or water-carriage as possible, and employ a considerable number of men and boys, whilst the local rope-and-twine works give work to a good many more. The export from all parts of the colony of phormium for the year 1899 was 10,371 tons, valued at £184,411, besides 304 tons of tow, valued at £1,150.

Gold.—This district has in the past produced large quantities of gold, but the area over which auriferous quartz-reefs have been discovered is limited to the Counties of Coromandel, Thames, Ohinemuri, and a small portion of Piako. In 1899 the output of this neighbourhood was 43 per cent. of all the gold produced in New Zealand, the quantity (168,769 oz.) entered for duty for exportation having been valued at £624,737. From 1878 to 1892 the Thames Goldfield alone produced some 600,000 oz. Now that the area over which auriferous quartz-reefs have been discovered has increased, a much larger output may be expected in the future. The total estimated value of the gold was £625,207 for 1899–1900, against £545,463 in the previous year. All the gold won was obtained by battery amalgamation, and the bullion by the cyanide process. There is a large amount of English capital being expended in developing new discoveries in out-districts away from the goldfield, but it will be some time yet before these discoveries have reached their full development. At the Thames there is a School of Mines, well attended and showing good results.

Coal.—Coal is found in most parts of this district, and is being worked with more or less success at Kawakawa, Hikurangi, Kamo, and Ngunguru, to the north of Auckland; whilst in the south there are three mines at Huntly, all turning out a good household coal. The total output of all the mines in 1899 was 141,128 tons.

Fruit.—The climate of the Auckland District is well adapted for the growth of the orange, lemon, vine, and olive, as also for the fruits of England, America, and Japan. The subtropical kinds flourish about Hokianga, in the north; those of the temperate regions, in the Waikato and neighbourhood. Now that the problem of how to land fruit in good condition in the London market has been solved, orchard planting is rapidly progressing, and it has been found that the culture of the hard varieties of the apple will repay export to England. Of late years a demand has set in for the poor clay-land that used to contain gum, as it is admirably suited for fruit-growing. Orchards are now planted in neighbourhoods where the soil has lain idle for years, for it has been proved that apples grown on this poor soil keep longer than those grown on richer land. What can be done by cultivation and care on is the starting-point of the river-steamers running to all places in the Otamatea and Hobson Counties. It is also one of the main centres for the export of balk timber.

Dargaville, on the Wairoa River, is a town of about 400 inhabitants, with all conveniences for travellers. It may be reached by rail and steamer from Auckland three times a week. Dargaville is the starting-point of the Kaihu Valley Railway, which is open for traffic for twenty miles from the town, and from the terminus of the railway all the Crown lands in the neighbourhood are reached, even so far north as Hokianga. The town is also the centre of a very large timber export. There are only two townships of any importance north of Dargaville—Port Rawene, or Hokianga, and Kohukohu, about four miles further up. Both have post- and telegraph-stations, and comfortable hotels, with fortnightly steam-communication from Auckland.

Whangarei, on the East Coast, is distant seventy-five miles from Auckland, with which it has steam-communication twice a week. The town is a thriving and important place, having a population of about 2,000, and is the centre of a large agricultural and pastoral country. In the neighbourhood is also a large coal-bearing and gum-producing district, while the export of oranges and lemons, which thrive magnificently on the rich volcanic soil, is on the increase. From here a coach runs weekly to Kawakawa, upon the arrival of the Northern Company's steamer, and from it, by carriage or horse, all lands can be visited within a radius of thirty to forty miles.

Kawakawa, at the head of the tidal portion of the river of the same name, is connected by a short railway-line with Opua, the calling-place of steamers from Auckland. Kawakawa possesses good inns. From it coaches run weekly to Hokianga and Whangarei. It is the centre of a coal and gum industry, and a port of lading for those products. The old town of Russell is situated further down the bay, and has a good hotel, besides having a post- and telegraph-office. To Whangaroa and Mongonui the Northern Company's steamers run every week. Whangaroa is famed for its exquisite scenery, and is the centre of a large timber- and gum-export trade. Mongonui is the starting-point and centre from which to visit, by carriage or horse, all the Crown lands in the Mongonui County, and from it the steamer "Paeroa" runs to Awanui and ports beyond, in connection with the weekly steamer from Auckland.

South of Auckland, along the Waikato Railway, there are numerous townships of more or less importance, but no starting-point for Crown lands, until Mercer is reached at a distance of forty-three miles. It is situated at the borders of what is known as the Waikato Country, upon the Waikato River, which is tidal up to this point, and the township has a post- and telegraph-office and other conveniences. At sixty-five miles from Auckland by rail is Huntly, also on the Waikato River, a flourishing township, with a very large output of valuable coal. It has also pottery-, brick-, and tile-works. On the opposite side of the Waikato River large areas of Crown lands are being brought into use, and are carrying large quantities of sheep and cattle. The next town is Ngaruawahia, or Newcastle, seventy-four miles from Auckland, situated at the junction of the Waikato and Waipa Rivers, with hotels, bank, post- and telegraph-office. It is a centre from which portions of Crown lands in Raglan County are reached, and also from it river-steamers run north and south to the various settlements. Ngaruawahia has a flourishing creamery, a brewery, and a cooperage. At eighty-four miles from Auckland the train reaches Frankton Junction, where a line branches off to Hamilton, Te Aroha, Paeroa, Thames, and Rotorua, the main line going to Te Awamutu, ninety-nine miles from Auckland. The latter is a thriving town; but to reach available lands for future settlement the traveller passes on by rail to Otorohanga; Te Kuiti and Poro-o-te-Rau, fifteen and twenty-five miles further on respectively, are both of them places at which there are accommodation-houses, forming convenient centres for visiting the fertile undulating limestone lands in the vicinity. Hamilton is a busy, flourishing town, situated on both sides of the Waikato River, with a population of about 1,300 persons, and is the centre of a large agricultural and pastoral district. It possesses a creamery, flax-mill, brewery, and two soap-factories, besides other local industries. Cambridge, about thirteen miles by road and fifteen miles by rail from Hamilton, has a population of about 900, and is the headquarters of the Farmers' Club. It is a busy, thriving township, surrounded by good farming country. Between Hamilton and Cambridge, and in the country round, there are numerous creameries, cheese- and butter-factories; wine- and cider-making is also successfully pursued, and there are several apiaries, from which large quantities of honey are produced. There are three flour-mills in the district, one at Cambridge, one at Hamilton, and the third at the terminus of one of the before-mentioned branch lines. One hundred and sixteen miles from Auckland by rail is Te Aroha, a quiet township, celebrated for its thermal springs and good hotels. Another thirteen miles brings the traveller to Paeroa, a centre of mining industry, and in another twenty-nine miles the Thames Borough is reached.

The settlements at the Thames and Coromandel are essentially mining townships. The first is situated thirty-eight miles by steamer from Auckland, on the Firth of Thames, and at the mouth of the Waihou River. It has a population of about 5,000 persons. There is daily rail- and steam-communication with Auckland, and a railway connecting it with Paeroa and Te Aroha. Coromandel is about thirty-five miles from Auckland, with which it has constant communication by steamer; it is another mining centre, situated at the head of a picturesque harbour. Tauranga, with a population of about 1,050, is situated on the harbour of that name in the Bay of Plenty. Coaches run thither from the Thames, and from Rotorua; it has also constant communication by steamer with Auckland, and with Matata, Whakatane, and Opotiki. From the fact of the harbour being the only one on the East Coast capable of receiving large vessels the town is bound to be of importance in the future. Tauranga has a chemical and sulphuric-acid works, and a cheese-factory.

Opotiki, the second town of importance in the Bay of Plenty, is situated about sixty-five miles by steamer or road from Tauranga. It has weekly steam communication with Auckland, and is connected with Gisborne by a bridle-track. It is the headquarters of the maize-producing district, and has rich alluvial lands, from which good returns are obtained. It is a good starting-point from which large blocks of Crown lands suitable for pastoral purposes may be reached.

The Township of Rotorua is situated on the shores of Rotorua Lake, at a distance of 172 miles from Auckland. Since the railway from Tirau was opened travellers can now reach Rotorua in one day from Auckland. It is the chief township in the hot-lakes district, and has also a large area of fairly good Crown land near, adapted for pastoral purposes. Considerable quantities of sulphur are obtained from the neighbourhood.

Crown or Native Lands available for Future Settlement.

In the Mangonui County the Crown possesses 31,000 acres of fairly good forest land, tolerably easy of access.

In the Bay of Islands County there are only about 38,000 acres of available Crown land, both forest and open, but the Natives still own some 152,000 acres, chiefly forest land, except about Kaikohe, where it is open and rich volcanic land, most of it broken, but fit for settlement.

In Hokianga County there are some 159,400 acres of available Crown land, of good quality, nearly all covered with forest, and fit for immediate settlement. The Natives still own some 104,650 acres, almost all good land, and fit for settlement.

In Whangarei County there are about 32,400 acres of available Crown land, mostly broken and forest-clad. The Natives still retain some 28,850 acres of land, part of it very rich.

In the Otamatea County the Crown retains only about 8,150 acres, a good deal of this being alluvial swamp, and now well drained. The Natives still own about 20,000 acres, but not much of it is fit for settlement.

In the Rodney and Waitemata Counties about 10,100 acres of Crown lands are left, most of it fit only for pastoral or fruit-growing purposes. The Natives still own about 14,000 acres in these two counties, some of it very good land.

In the Manukau County the Crown owns some 10,600 acres of broken forest land, fit for pastoral purposes. The Natives still own about 15,000 acres, a portion of which is fairly good.

In the Waikato and Raglan Counties the Crown lands amount to about 88,000 acres, all fairly good land, mostly forest, and easy of access. In Raglan County the Natives still own the freehold of 150,000 acres, all good land.

In the Coromandel, Thames, and Ohinemuri Counties there are about 337,000 acres of available Crown lands, a great deal of it too broken for settlement. In the last two counties a good deal of the land is swampy, and requires draining. The Natives still own 97,200 acres, much of which is very good.

In Tauranga, Whakatane, Opotiki, and Rotorua Counties the Crown owns 450,000 acres, nearly all forest-clad, and generally broken ; but in the last-named county the Natives retain a very large area, the greater part too broken or too much covered with pumice or volcanic ash to be fit for settlement.

In the Kawhia and West Taupo Counties the Crown is acquiring from the Natives large areas of very good land, all fit for settlement and easy of access. About 300,000 acres are really first-class land, and about 1,000,000 acres fairly good land, all suitable for pastoral purposes, and accessible from the Main Trunk Railway-line.

The Crown now hold about 250,000 acres in Kawhia County—100,000 acres surveyed and available for settlement—and 138,000 acres in West Taupo County.

THE TARANAKI LAND DISTRICT.

J. Strauchon, Chief Surveyor.

The Taranaki Land District is situated on the western side of the North Island of New Zealand, at about its widest part, and may be said to be the most compact and fertile district of the colony, for, with the exception of the upper half of Mount Egmont, and of the ranges adjoining, which absorb about 36,000 acres, the whole of the area—minus what is taken up by the rivers, streams, and lakes—is suitable for settlement, and certainly two-thirds of the district is good land. The gross area of the district is 2,430,000 acres.

Physical Features.

Of mountains, the principal one is the beautiful volcanic cone from which the district takes its name, Taranaki, otherwise called Mount Egmont, which has an altitude of 8,260 ft. This mountain is the centre of distribution for a radius of twenty miles of the volcanic formation known as the "drift," which covers the volcanic rocks below an altitude of 3,000ft. Hummocks composed of trachyte boulders and cement crop up here and there and make excellent metal-quarries.

Beyond the volcanic formation—that is, from about Urenui on the north and Hawera on the south—the country is generally broken, and the formation is known as papa, a calcareous blue clay, capped in many places by shelly limestone.

The northern portion, between the Tongaporutu and the Mokau Rivers, contains also limestone, greensands, and coal outcrops. At Panirau, a small tributary of the Mokau, about thirty miles from the sea, there is an isolated patch of volcanic agglomerate and tufas, and a similar formation is found at the north-eastern corner of the district.

Eastward of the base of Mount Egmont there are few, if any, mountains worthy of the name, although there are many ranges varying in height from 1,000ft. to 1,500ft. above sea-level, and, in a few instances—such as the Matemateonga and Waiaria Ranges—they run up to 2,500 ft.

The principal river is the Wanganui, which bounds the district on the east between Taumaranui and Pipiriki, a distance of about ninety miles. Its average width varies from 2 to 3 chains. For nearly the whole distance it is shut in by high precipitous hills, and in many places by perpendicular walls of rock. The scenery is very grand and beautiful. There are numerous rapids, but few of them are dangerous to skilful canoeists. A steamer runs regularly from Wanganui to Pipiriki, a distance of fifty-five miles, making occasional trips further up when sufficient inducement offers. A small steamer of light draught and considerable power is used for the tourist and trade traffic on the upper portions of the river between Pipiriki and Ohura, a distance of some sixty miles. A channel is snagged up the Tangarakau River as far as Putikituna, a distance of twelve miles. From this point a road (nine miles in length) is being constructed to join the Ohura (or East) Road at a point about forty-seven miles from Stratford, and in the middle of the Whangamomona Improved-farm Settlement, the settlers in which and surrounding blocks will thus have double communication, with Wanganui on the one hand and Stratford on the other. When the road is completed through to Auckland, tourists can enjoy a trip up the Wanganui River as far as Ohura, then back, and up Tangarakau River across to Ohura Road, then on to Auckland, or back to Stratford, as they desire. The principal tributaries flowing into the Wanganui on the Taranaki side are the Whangamomona, at eighty-two miles; Tangarakau, at eighty-five miles; Ohura, at 114 miles; Ongaruhe, at 143 miles respectively from the Town of Wanganui.

The next river in size is the Mokau, bounding the district on the north. It is navigable for small steamers of 70 or 80 tons as far as the coal-mines, about twenty miles from its mouth, and for canoes as far as Totoro, twenty-six miles further up. Several outcrops of coal are found on its banks, and, as limestone is also present, the river is likely to become an important waterway of the district. The scenery on either side, although not on quite so grand a scale as may be seen on the Wanganui, is very beautiful.

The other large rivers are the Waitara and Patea. The former has its source about midway between the coast and the Wanganui River, in an easterly direction from Pukearuhe, between New Plymouth and the Mokau. It is about a hundred miles in length, and runs out at the Town of Waitara, some ten miles north-east from New Plymouth. There is a bar at the mouth, but steamers of 300 tons can enter safely in calm weather, and, although there are numerous rapids on its course, it is navigable for canoes for about ninety miles.

The Patea River rises in Mount Egmont, and, after traversing a tortuous course of about 110 miles, runs out at the extreme southern end of the provincial district. It has a bar-harbour, with a depth of 13ft. to 14ft. at spring-tides. Steamers of from 40 tons to 50 tons trade regularly to the town of Patea, which is situated a mile or so north of the mouth. The Patea is navigable for canoes for fifty miles.

Besides these rivers there are many smaller ones, and streams innumerable—in fact, no district in the world could be better watered and at the same time be so secure from disastrous floods. It is estimated that between the Mokau and the Patea there are no fewer than eighty-five named streams emptying themselves into the Tasman Sea, fully sixty of which flow from Mount Egmont.

Excepting the Ngaere Swamp, a block of open land near Eltham, 3,700 acres in extent, now partially drained and recently disposed of for settlement purposes, there are no plains, properly so called, in the district, although the stretch of very fertile country lying between the Waingongoro and Otakeho Rivers, comprising an area of about 25,000 acres, is known as the Waimate Plains. Of this area 13,500 acres have been disposed of, and the remainder, 11,500 acres, has been handed back to the Natives as a reserve.

There are no lakes worthy of the name. The largest sheet of water is Rotokare, situate about twelve miles from Eltham; it is about half a mile in length, with an average width of six chains. There are also a few small lakes inland from Waverley, at the southern end of the district.

The whole of the district, with the exception of a fringe of open country along the coast from Pukearuhe to Patea, averaging three miles in width, and containing about 250,000 acres, and some valleys at the north-eastern corner of the district, about 150,000 acres in extent, was originally covered with heavy forest. Estimating the area already cleared for settlement at 240,000 acres, it will be seen that there still remain about 1,754,000 acres under bush.

The larger timber is chiefly rata, rimu, matai, tawa, kahikatea, kohekohe, pukatea, rewarewa, hinau, with a few totaras scattered here and there. Among the *smaller trees* may be mentioned the kotukutuku or fuchsia, karaka, and mahoe.

As regards the timber industry, there are altogether twenty-six sawmills, and the total quantity cut in 1899 was 15,199,000 ft., chiefly rimu (red-pine), kahikatea (white-pine), and matai (black-pine). Most of these mills work together under Association rules and prices, their output for the year being 13,000,000 superficial feet. The others work independently, and their output amounted to only 2,199,000 ft. for the same period.

An area of 72,565 acres, measuring six miles on every side from the summit of Mount Egmont, has been set apart as a forest-reserve. At about three miles within the reserve the forest begins to get stunted; and at four and a half miles it gives place to low wiry scrub, which ceases at five miles, or an elevation of about 4,000 ft. At 5,000 ft. the moss ends; beyond this point to the summit the mountain is composed of loose scoria and lava.

A comfortable mountain-house has been built at an elevation of 3,200 ft. on the northern face of the mountain, at a distance of twenty miles from New Plymouth by the Junction and Egmont Roads. Eighteen miles can be driven over, and the remaining two ridden. This house is maintained by the North Egmont Forest Board of Conservators, and is open for the accommodation of visitors from the middle of December to the end of March in each year. The keeper acts as guide also. There are women's rooms at one end of the house, men's at the other, with large common living- and dining-room in the centre; considerable improvements have been made this year to the house and surroundings. Visitors have now the option of being supplied with meals at a cost of 1s. 6d. each, or they may provide and cook their own food. Horse feeds, 1s. 6d. each; paddocking, 6d. daily, or 2s. 6d. a week. A small charge is made of 2s. if stay is for one night only; if for longer, then 1s. per night throughout the visit. Guide's fee for mountain, £1 per party. During the past season there were 859 visitors, remaining various periods of from one or two days to as many weeks. The view from the top is superb, including as it does, the volcanic cones of Ruapehu, Ngauruhoe, and Tongariro, the whole of Taranaki, and a considerable portion of Auckland and Wellington Districts, also across Cook Strait to the mountains of Marlborough and Nelson Districts of the Middle Island. In fine weather, when the snow is off, the mountain can be ascended without risk. A considerable sum has been expended in improving the accommodation at the house during the past season.

The mountain can also easily be ascended from Stratford side, the return journey occupying about thirteen hours, including stoppages. Tourists can ride over the first thirteen miles to a rough shelter-shed above the grass-line, altitude 4,325 ft.: time occupied, about three and a half hours. A new house is now in course of erection, and will be ready for next season. Here the horses are left, and the remaining climb has to be done on foot: time required for fair walker, a good three hours, although, coming down, the distance can be done in two hours. Six hundred persons visited the mountain by this route during the season. Good hotel-accommodation, guide, horses, and provisions, can be obtained in Stratford on reasonable terms. The return trip can be varied by visiting Dawson's Falls and Kendle's Cascade.

Another route now coming into favour is from Hawera or Eltham *viâ* Manaia or Kaponga and Dawson's Falls. At the latter place a comfortable shelter-house, capable of accommodating over forty people, has recently been erected, and is known as the Falls Mountain-house (altitude, 2,990 ft.). This house, which is close to the Falls (65 ft.), is within an easy two hours' ride of Kaponga. During the season the house is in charge of a caretaker, and food, bedding, horse-feed, and paddocking can be obtained. The number of visitors to Falls and mountain by this route was 988 for the season. From the house to summit of Mount Egmont occupies from four to six hours' climbing at a moderate pace, the time being in accordance with strength and composition of party. From the top the tourist can, instead of returning by same route, drop down to the mountain-house on the north or New Plymouth side of, and 3,000 ft. up, the mountain. The walk would not occupy over two hours, easy walking, or he could go out *viâ* Stratford.

Soils.

The volcanic soil, the boundaries of which have been already described, varies a good deal in quality. The best is believed to be on the south side of the mountain, between Stratford, Hawera, and Opunake, but not less than two or three miles from the forest-reserve boundary. It is thought that the country now being opened to the north and east of the volcanic deposit—that is, the papa and limestone formation—will, from the presence of lime, be much richer and more lasting as pasture-land than that around the mountain. The carrying-capacity of the land is, on an average, three sheep to the acre.

Dairying, Grazing, and Agriculture.

Taranaki is essentially a grazing and dairying district, its chief products being butter and cheese.

There are 94 dairy factories, 60 skimming stations, and 1 condensed-milk factory scattered over the district. Of these factories, 80 produce butter only, 12 butter and cheese combined, while two produce cheese only. Seventy-seven factories and creameries are owned by proprietory companies, while 73 are run on co-operative principles. Besides the above are many small plants run on individual farms of which no record is obtainable.

In September, 1896, a new work in connection with the dairying and meat industries was started in the shape of the Taranaki Freezing Works. They are situated at Moturoa, near the breakwater, and close alongside the railway-line. Substantial buildings have been erected, and a railway siding laid down. The machinery consists of a "Paxman" compound surface-condensing engine of forty indicated horse-power, driving a "Livide" compressor, capable of freezing 400 sheep per diem: although up to the present time the company has confined its attention wholly to the freezing of dairy produce. During the past year the Company received at its works 13,220 cases of cheese and 153,268 boxes of butter, of which 12,305 cases of cheese and 136,117 boxes of butter were shipped to the Home market, the remaining 915 cases of cheese and 17,151 boxes of butter being shipped to Australian and local markets. During the hot season the factories and railway-vans carrying butter have been supplied with ice from the works at a nominal cost.

At the Taranaki Bacon Factory, Fitzroy, substantial buildings have been erected, and a 6-horse-power "Livide" machine fitted up, and the owner, Mr. Drake, has the works in full swing. The pigs are purchased from the farmers in the district and delivered at the styes in connection with the factory, where they are topped off with corn-feeding for fourteen days before being slaughtered. The number of pigs put through during past season was 3,300, weighing 396,000 lb., or an average dead weight of about 120 lb. each; price, 3½d. per pound dead weight. The hams and bacon exhibited by this factory have always taken first-class honours in the various agricultural shows. An industry like this cannot but prove of great assistance to settlers in the district, and should receive their most cordial support.

There are in the Taranaki District 17,471 horses, 202,307 cattle, 508,665 sheep, and 37,337 swine. These figures include all kinds and ages.

Agriculture has not hitherto been carried on to any great extent in this district. The total area under corn-crops and cut for threshing during season 1899–1900 was 8,670 acres; corn- and grass-crops cut for hay, chaff, or ensilage, 9,922 acres; corn- and green-crops for feeding to, or down with, stock, 21,393 acres; sown grasses and clovers for feeding down, 687,968 acres; sown grasses for seed, 6,344 acres; potatoes, 1,964 acres; beet, 77 acres: turnips, 7,607 acres; mangolds, 688 acres; rape, 1,613 acres; carrots, 577 acres; total area under crops of all kinds, including gardens, orchards, vineyards, 748,718 acres. Plantations, 954 acres; fallow, 454 acres.

The average yield of different grain-crops in bushels per acre for season of 1899–1900 is: Wheat, 40·59; oats, 47·21; barley, 37·00; rye, 12·50.

Mining.

The only mining going on at present is at the Mokau Coal-mines, which are situated on the Mokau River, about twenty-one miles from the sea, the river being navigable right up to the mines for vessels of 6 ft. 6 in. draught.

After a lapse of many years, boring for petroleum has been resumed. A new bore was sunk at Moturoa, close to the former bore, and at a depth of about 875 ft. oil was struck in considerable quantity. After fully testing this well, it was found that it was impossible to "shut off the water" from below, which seemed to rise and fall with the tide, thus indicating the existence of some fissure or other means of inlet from the sea. The result was that only about two or three barrels, of 42 gallons each, could be got per day, the oil rising at intervals only, and all efforts to pump having continuously failed. The company then chose a site about half a mile inland, and sank a bore to the depth of 1,534 ft. without, however, obtaining any oil. A third bore, which is still open and cased, was then sunk about a quarter of a mile from the first, and in this gas in a great volume was struck at about 908 ft., followed at 910 ft. by oil in great quantity and of excellent quality. Unfortunately, this was struck in soft papa, and after about twenty barrels had been pumped, and when the company was beginning to sell and to export its crude petroleum, the supply suddenly ceased. The gas, which had previously issued in sufficient quantity to enable the company to dispense with other fuel, ceased at the same time. The most probable explanation of this mischance is that the soft papa, of which the roof of the oil-seam is composed, having been deprived of the support of the formerly imprisoned gas and oil, has collapsed, and thus choked the oil-seam lying in the vicinity of the bore. After further efforts to pump out the mud filling the bore, the company resumed drilling with the hope of obtaining another oil-supply at a greater depth. At 1,384 ft. oil was obtained in small quantities, and gas was thrown up in great volume. At 1,865 ft. the bore passed through the sedimentary papa rock and entered sandstone, which continued to the bottom at 1,976 ft., where a large quantity of oil and gas was struck. The bore was cased with 6-in. casing down to 1,379 ft., where a thin hard streak of sandstone was found embedded in the papa, and was taken advantage of to shut off the water from above; but, unfortunately, water was again met with below this, and as no other hard stratum was passed between that and where the oil was struck, it was found impossible to shut off the water, although a 5-in. casing was sent right to the bottom. Packing was also tried several times. Each time the packer succeeded in shutting off the water for a few days, when oil was pumped at the rate of about eight barrels per diem; the sides of the bore around the packer, however, kept crumbling away each time, and the rush of water from above effectually prevented further pumping of oil, and the company was reluctantly compelled to abandon this their third bore, the plant being unequal to deeper boring. Undaunted by frequent failures, the plant was moved about 100 yards west, and a fresh bore commenced. This passed through similar but harder strata, and was drilled to a depth of 2,050 ft., but although gas and oil were met with at different levels, they were in small and unpayable quantities. During the year 1899 a new drilling plant was obtained from America. This was erected on the Frankley Road, some four miles south-east of former workings. Here, although drilling was prosecuted vigorously, several months lapsed before a depth of 300 ft. was reached, owing to an immense quantity of broken volcanic rock, gravel, and sand being encountered. Shortly afterwards it was found impossible to make any progress at all, the sand and gravel falling in faster than it could be pumped out, and often rising as much as 30 ft. in the iron casing. Another site was selected about half a mile nearer Moturoa and 331 ft. above sea-level, where, although similar difficulties were encountered, the papa formation was reached at 410 ft., after passing through 25 ft. of quicksand. This bore was continued to a depth of 1,335 ft., but no oil was struck. Seven bores having thus been tried to various depths without success, the company abandoned the enterprise, and sold all their property by public tender. A local gentleman became the purchaser, and he, after an interval, obtained the co-operation of a few other New Plymouth residents. A new site was selected near Moturoa, about 150 yds. south-east of the company's third bore, over which one of the plants has been erected, and from which oil still continues to flow in small quantities and mixed with water. The second plant has been erected at the site chosen for the new bore. The depth is now about 1,780 ft., and drilling operations are progressing satisfactorily, though only gas and slight indications of oil have yet been met with. The syndicate, having now two complete drilling plants on hand, with an experienced staff, is in a position, should the necessary capital be forthcoming, to thoroughly test the extent and value of the oil-deposits of the district.

An enterprise like this, if successful, would enrich and give an immense impetus to the trade and importance, not only of the district, but also of the colony generally. Should the efforts now being made be abandoned through lack of capital, it is unlikely that further steps will be taken for many years to further test the value of these deposits, of the existence of which there can be no doubt.

Ironsand is found in great abundance on the seashore from Mokau to Patea, a distance of 130 miles. It produces, when smelted, from 50 to 60 per cent. of iron of the finest quality. The first attempt to smelt this sand was made in 1848, and several trials have been made since, but the heavy cost of production and the absence of capital and modern appliances have, so far, retarded the industry. Strong efforts are now being made to remedy this by the introduction of outside capital, and it is hoped these will shortly be successful.

Climate.

The climate of Taranaki is remarkably healthy, without any extremes of temperature. Below is given a table of mean, maximum, and minimum temperatures in shade for each month of the year ending December, 1899:—

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Mean temperature	63·4	61·9	63·2	64·2	57·0	57·9	60·5	53·5	54·5	56·1	59·8	61·1
Mean max. temperature ...	71·0	73·1	73·8	75·0	69·3	67·0	74·4	62·8	63·0	64·5	69·2	68·8
Mean min temperature ...	55·8	50·7	·52·7	53·4	44·7	48·8	46·7	44·2	46·1	47·7	50·4	53·3
Number of days on which rain fell...	16	8	18	16	15	9	22	13	22	25	20	23
Total rainfall per month in inches and decimals ...	9·99	3·95	3·65	6·49	9·42	3·84	6·53	3·96	2·84	5·86	5·21	2·96
Mean barometric reading for the month	29·70	30·01	30·02	30·13	29·98	30·12	29·99	30·21	30·25	30·00	29·98	30·03

The mean barometric reading was 30·04 in. for the year. Total rainfall, 64·73 in. on 207 days, the maximum fall being 2·40 in. on 23rd May. The rainfall varies considerably, as, for instance, at Norfolk Road, three miles south of Inglewood, the rainfall for the year was 99·82 in. on 181 days; the maximum fall was 4·34 in. on 26th August. The average rainfall at New Plymouth during the past six years was 63·99 in., and at Norfolk Road for same period 102·56 in.

Chief Towns.

The principal town of the district is New Plymouth (population about 4,200), situate on the seashore, about two miles from and to the north-east of the picturesque rocky islets known as the Sugar Loaves. The general appearance of the town is very attractive, and it abounds in neatly-kept gardens. The Recreation Grounds, from which a good view of Mount Egmont is obtained, form a favourite resort.

New Plymouth is 252 miles by rail from Wellington, the railway running in a northerly direction through the district from Patea to Sentry Hill, where it turns at right-angles westward for eight miles to New Plymouth. From Sentry Hill there is a branch line to Waitara, four miles distant.

The Port of New Plymouth is situated at the Sugar Loaves, two miles from the town. Protection for shipping is afforded by a concrete mole or breakwater running in a north-east direction for a distance of 1,900 ft. Under the lee of this there is wharf-accommodation provided for the coastal trade. Steamers of 1,000 tons can be berthed here in almost all weathers. The wharf is connected with New Plymouth by both rail and road. The breakwater was built at a cost of £200,000, borrowed under security of one-fourth of the land revenue of the Provincial District of Taranaki, and the right to levy a rate over certain lands. The present rate levied is ½d. in the pound on the capital value. The principal over-sea exports from breakwater for the year (exclusive of all coastal trade) were: Bacon and hams, 14 tons; butter, 3,547 tons; cheese, 812 tons; fungus, 169 tons; leather, 2 tons; hides, 17 tons; preserved milk, 3,752 lb.; tallow, 8 tons; wool, 32 tons;—total value £336,965. Imports (over-sea): Value, £59,515. Customs duties for the year, £20,350. During the year 400 steamers entered and left the port: tonnage, 150,531, with crews numbering 8,372. The number of passengers to and from the breakwater by sea, 14,074.

Manufactures in New Plymouth are represented by a sash-and-door, a boot, butter-keg, and three coach factories, a brewery, a cordial, and also a patent-stopper factory, a flour-mill, tannery, fellmongery, bone-mill, and iron-foundry, with freezing-works and bacon-factory in the suburbs. The town has both water and gas laid on.

Hawera, the next largest town, is situate on the eastern edge of the Waimate Plains. The population is stated to be about 2,700, and the town is lit with gas. The Wellington–New Plymouth Railway runs close to it, the distance by rail from New Plymouth being about forty-eight miles. Hawera is surrounded by a first-class dairying and grazing country, capable of carrying a very large population. On 1st December, 1898, an up-to-date bacon-factory, costing some £1,200, commenced the work of killing and curing in Hawera. During the past season it has put through 2,000 pigs, the average weight being 140 lb., and price paid 3d. per lb.

The Town of Patea is situated on the coast, at the extreme southern end of the district, and has a population of about 800. There is a splendid grazing district inland, with a large area of land yet to be opened up. The principal industry is the boiling-down and canning of meat, and the Western Packing and Canning Company during the past season slaughtered forty-three thousand sheep, averaging 54 lb. each, and one thousand head of cattle, averaging 550 lb. each, the output being nine thousand cases of tinned meats, and 640 casks of tallow. There is also a dairy factory, which has two branch creameries in the country. A bacon-factory has also been established. Exports for 1899 were: Wool, 4,819 bales; fungus, 107 sacks; tallow, 1,146 casks; pelts, 573 casks; hides (loose), 8,272; corn, 751 sacks; grass, 1,195 sacks; butter, 2,303 cases; cheese, 470 cases; flax, 131 bales; meat, 8,910 cases; cattle, 12; bonedust, 530 sacks; potatoes, 287 sacks; bacon, 282 cases; pigs' feet, 10 sacks; sundries, 608 packages; empties, 786; runners, 104 casks. Imports: 6,850 packages; coal, 450 tons. The wharfage dues collected amounted to £1,499; dumping dues, £345; tonnage dues, £267. The number of steamers in and out, 149. The Harbour Board has an up-to-date wool-dumping press and hydraulic pumps. A new wharf and sheds are now in course of erection. A new flagstaff has also been erected at a cost of £91. The guide-pier has now been finished with the exception of pier-head, the cost to end of year being £4,944 16s. 7d., and the pilot reports a quicker scour and more water than formerly, although the past season has been the driest known for many years. An event of considerable importance to Patea was the arrival of a Home steamer, which anchored in the roadstead and took in cargo without difficulty. The width between the east and west pier-heads is 260 ft.; width of channel about 180 ft., gradually narrowing to 100 ft. as the beacons are approached. The pilot reports the depth of water at not less than 12 ft. at high-water springs, and 9 ft. at high-water neaps, with a straight channel.

Stratford, a comparatively young town, lies about midway between Patea and New Plymouth. It has already a population of about 1,800, and is growing fast. The height above sea-level is 1,000 ft., and the climate is bracing though somewhat moist. The main road to Auckland—known as the Stratford–Ongaruhe (now Ohura Road)—starts here. It has been formed as a cart-road for fifty-five miles, and as a bridle-road to fifty-eight miles. If the work is continued energetically, communication with Auckland should be opened up in about three years' time. A bacon-factory has just been started at Stratford under very favourable circumstances, and is likely to prove a public benefit, and also a financial success to the proprietary company. The works are on a fair scale and up to date. The machinery is driven by a 30-horse-power Victor turbine, the power being obtained from the Patea River through a tunnel 865 ft. long, cut across a bend in the river.

The refrigerating engine is a 6-ton British Linde, while hot water is supplied from a high-pressure boiler in an adjoining building. The chilling-chamber holds about 120 carcases (or one day's killing); here they remain overnight, and are then passed on to the curing-room, a spacious compartment of 80 ft. by 26 ft., capable of holding 1,000 carcases; from here they pass to the drying-room, of same size and capacity, on the upper story. A brick smoke-house, capable of dealing with 600 pieces at a time, has also been erected. The piggeries and slaughter-house are about a mile from the works, and are connected by tramway; the former consists of twenty compartments holding ten pigs each, and are conveniently arranged for feeding, &c. the output during the past season being 3,532 pigs; average weight, 140 lb.; price, about 3d. per lb. On the Eltham–Opunake Road another factory, called the "Pioneer Bacon Factory," was started by Mr. Buchanan in 1897, putting through this year 2,981 pigs; price given, about 3d. per lb.

Waitara, a seaport town of 760 inhabitants, is situated on the river of the same name, a mile up from the sea, and about ten miles north-east from New Plymouth. The Mount Egmont Freezing-works have passed into the hands of a new company, and continued running on the old lines from 1st January to 12th July, when they were closed down, and the place has been practically rebuilt and enlarged, the storage capacity now being for 25,000 carcases of mutton, together with five freezing rooms, capable of hanging 1,200 carcases, also a beef-chilling room and a mutton-chilling room. Provision is made at the slaughterhouse for accommodation of fourteen mutton and three beef butchers. The freezing-plant is a 60-ton Hercules, and is guaranteed to freeze 1,500 sheep per day. The boiling-down and tallow department is most complete and up-to-date, and a large manure plant is now in course of erection. The works are fitted throughout with electric light. The following produce was dealt with during the year: 11,648 quarters of beef, weighing 2,147,744 lb.; 10,721 carcases of mutton, weighing 599,178 lb.; lamb, 6,307 carcases, weighing 199,232 lb.; 9,270 legs of mutton, weighing 85,831 lb.; pieces of mutton, 18,214, weighing 150,567 lb.; butter, 655 boxes, besides some 5,000 boxes exported from the works on account of the Taranaki Freezing Company. 673 pigs were also killed and frozen at the works on account of the Stratford Bacon Factory Company, but these were not exported. All produce is conveyed on board the New Zealand Shipping Company's ocean-going steamers (which anchor in Waitara roadstead) in specially constructed and insulated bags. These works are gazetted as Government grading and cool stores, which is a great convenience for outside dairy factories, as it avoids risk of injury to their produce after it has been graded. The exports from the port during the year were: 186½ tons grain, 187¼ tons tallow, 1,185 hides, 80 bundles skins, 363 sacks potatoes, 2,026 bales wool, 305 sacks chaff, 29½ tons flour, 343 head of cattle, 433 sheep, 67 pigs, 14 horses, 124,584 ft. timber, 195½ tons butter, 2,792,832 lb. of frozen meat, 563¾ tons of general cargo, 2½ tons pelts; total exports, 3,142 tons. Imports: 421½ tons grain, 5 tons potatoes, 278¾ tons manure, 140¼ tons lime, 675,800 ft. timber, 4,452¾ tons coal, 228 bales wool, 24 bales fungus, 55 hides, 20 bundles skins, 1,162¾ tons flour, 4 horses, 370 sheep, 4,359¼ tons general cargo; total imports for the year, 12,225 tons. 180 steamers and 36 sailing vessels, a gross tonnage of 35,932 tons, entered and cleared for the year, besides seven ocean-going steamers, which anchored in the roadstead.

Inglewood, situated on the railway-line, sixteen miles south-east of New Plymouth, is a flourishing little town of some 810 inhabitants, rapidly coming to the front. During current season a bacon-factory has been started, and for its three months' run has put through 1,200 pigs; average dead weight, 140 lb.; price given, 3d. per lb. for pigs from 112 lb. to 160 lb., and 2¾d. from 160 lb. to 180 lb. dead weight. The factory is worked by a 24 in. turbine, the water being conveyed in a race 10 chains long. It is provided with a four-horse-power tubular boiler, a Lard jacket, and Californian pump. There is also a size D ammonia refrigerating machine.

The only other towns of importance are Eltham, population, 800; Opunake, population, 430; Manaia, population, 480; and Normanby, population, 410.

Roads and Railways.

The chief means of communication is the railway from Wellington, which traverses the district between Patea and New Plymouth—a distance of sixty-six miles. Trains run every day between New Plymouth and Palmerston North—164 miles—and on Mondays, Tuesdays, Thursdays, and Fridays there are through trains between New Plymouth and Wellington—252 miles. The Main North Road runs from New Plymouth, passing through the Towns of Waitara and Urenui; it is formed as a cart-road as far as Pukearuhe, a distance of thirty miles. From here a horse-track partly on the beach connects with the Mokau and Awakino Rivers, and from Mokau there is a road to Te Kuiti, in the Auckland District. At twenty-four miles and a half from New Plymouth and about three miles beyond Urenui a new main road has been formed up the Mimi Valley and over the main range east of Mount Messenger, thence down Tongaporutu Valley to near the sea, where it joins the old road. It is hoped that this road will be opened for traffic during the year, and, although some eight miles longer than the other, it will, when a bridge has been erected over the Tongaporutu River, always be available independent of tides. About midway between New Plymouth and Waitara on the above road the Mountain Road diverges and runs almost due south, and chiefly along the railway, for a distance of forty miles, connecting with the Main South Road at the Town of Hawera. This is at present the principal road in the district, tapping, as it does, large numbers of district roads, and passing through the Towns of Inglewood, Midhurst, Stratford, Eltham, Normanby, and Hawera.

The Ohura Road branches from the Mountain Road at Stratford. It is formed and open for traffic as a dray road for fifty-five miles from Stratford and for horse-traffic to fifty-eight miles. A coach runs in summer time every Tuesday and Friday (returning on following days) between Stratford and Whangamomona Village, a distance of forty-one miles, fare, 12s. 6d. each way; and the road is now being extended into the interior so as eventually to connect with Auckland, and will open up a large area of fertile country.

The Main South Road from New Plymouth follows the trend of the coast to the south, and was at one time the coach-road to Wellington. It passes through the Villages of Omata, Oakura, Okato, Rahotu, Otakeho, Manutahi South, and Kakaramea, and the Towns of Opunake, Manaia, Hawera, and Patea.

The Junction Road runs south-east from New Plymouth, and crosses the Mountain Road and railway at Inglewood, thirteen miles out; it is metalled for thirty-five miles, formed as a dray-road to forty-one miles, thence as a bridle-road to forty-seven miles, where it connects with the Ohura Road at a distance of thirty-one miles from Stratford. This road crosses a number of district roads; hence its name.

The Opunake Road runs from Stratford to Opunake, twenty-six miles, skirting the southern base of Mount Egmont. It is formed and metalled for twelve miles from Stratford; the remainder is open for horse-traffic only. Vehicular traffic turns down the Manaia Road to Kaponga, thence along the Eltham–Opunake Road to the latter place. This route is metalled throughout.

The Eltham Road runs from Eltham to Opunake, twenty-five miles, connecting with the Opunake Road at Punehu, seven miles from Opunake. This is formed and metalled throughout.

The other main roads in course of construction are the Awakino Road, branching from the Main North Road at the Mimi; the Rawhitiroa Road, leaving the Mountain Road near Eltham; the Waitotara Valley Road, starting from the Main South Road at Waitotara Township; and the Otaraoa, Moki, and Okoke Roads.

Crown Lands available for Settlement.

	Acres.
Native lands undealt with, 1899	326,250
Native lands purchased, 1899–1900	56,000
	270,250
Crown lands available for settlement (as per annual returns)	567,000
Total	837,250

Of the above, about 150,000 acres are open valleys and hills in the north-east corner of the district; a good deal of it more or less pumice-land, but still suitable for grazing. From the rest may be subtracted perhaps 10,000 acres for area absorbed by rivers, gorges, &c., and there remain 677,000 acres of forest-land yet to be dealt with. Of this area perhaps 50,000 acres, made up of strips of flats and terraces, may be suitable for agriculture; while the balance—627,000 acres—will be good pastoral land.

It may be said, in conclusion, that there is every sign of genuine prosperity throughout the district, which has advanced rapidly during the last few years, and will no doubt continue to do so.

THE HAWKE'S BAY LAND DISTRICT.

E. C. GOLD-SMITH, Chief Surveyor.

The Land District of Hawke's Bay comprises that portion of the east coast of the North Island from Cape Turnagain, in latitude 40° 30′, northwards to Lottin Point, about thirty miles beyond the East Cape, and contains the Waiapu, Cook, Wairoa, Hawke's Bay, Waipawa, and Patangata Counties.

It has a seaboard of 300 miles, with an average depth from the coast of forty-five miles, and embraces an area of 6,063,000 acres. Its western limit is defined by the Ruahine, Kaweka, Ahimanawa, Raukumara, and other high ranges that form the watershed between the rivers flowing through it to the sea, and those that run to the west coast and the Bay of Plenty.

Physical Features.

The Ruahine Range extends northwards for about sixty miles from the Manawatu Gorge as far as the valley of the Ngaruroro River. Its altitude varies from 3,000 ft. to 6,000 ft., and for a considerable distance its summit is snow-clad during the winter months.

The Kaweka, a shorter range, divided from the Ruahine by the Ngaruroro River, attains an altitude of 5,650 ft., is very rugged and steep, and a prominent feature in the landscape in winter, covered as it then is with snow.

From these two ranges, which fall very abruptly on the Hawke's Bay side, the land slopes gradually to the sea, forming in some parts fine rolling hills—the essence of a sheep-country—in others extensive plains, with comparatively little poor soil.

Northwards from the Kaweka there is a series of forest-clad ranges of varying height, stretching away in the direction of the East Cape. Hikurangi, the highest point, is a bold peak with an elevation of 5,606 ft., rising so abruptly on all sides that the ascent can be made only at one point, and that with difficulty.

The only lake in the district of any extent is Waikaremoana, so famous for its magnificent scenery. It lies about thirty-five miles inland of the Wairoa (Clyde), and is eleven miles in length, with a breadth at the widest part of about eight miles. Nestled among precipitous mountain-ranges, wooded to the water's edge, with numerous bays and inlets, it has a natural beauty hardly to be surpassed.

From Wairoa there is a formed road to the lake, and sixteen miles round it, as far as the Mokau Falls and River.

The principal plains are: (1.) The Ruataniwha, some fifty miles south of Napier. This is 120 square miles in extent, is for the most part occupied as sheep-runs, and carries a large quantity of stock. (2.) The Heretaunga Plain, with an area of ninety square miles, lying immediately to the south of Napier. This is rich alluvial land; a large portion is thickly settled, the remainder used for grazing and agriculture. The only other plain of any extent is at Poverty Bay. It has an area of sixty-five square miles, is very fertile, well cultivated, and bears a large population.

The land district is well watered throughout by numerous rivers and streams, but none are navigable except the Wairoa and Turanganui, and these only for vessels of light draught. They are both tidal, and serve as ports to the Towns of Wairoa [illegible]lyde) and Gisborne.

Communication.

The chief outlets from Napier are three in number. First the Napier–Wellington Railway, which traverses the centre of the southern half of the district for its whole length of 100 miles, and may be called the main artery of communication. Parallel to it throughout runs an excellent gravelled road, which was made before the construction of the railway. On either side there are numerous branch roads, which act as feeders, making a very complete system of internal transit. Another main road runs in a westerly direction to Kuripapanga, distant forty-five miles, a favourite resort in the summer time, removed as it is from the heat of the country near the coast. A coach runs thither twice a week, and on thence to Inland Patea, where the Napier Road meets the roads to Hunterville, Tokaanu, and the Wanganui River.

The part of the district served by these two main lines—viz., that between Napier and Woodville—contains the greater portion of the population, and from the extent of arable land within it is likely in the future to be very thickly peopled. Notwithstanding that so much of the Native land in this part is unoccupied and in its natural state, there are nearly a million of acres of land in sown grasses, carrying 2,750,000 sheep and 80,000 cattle, and the population, inclusive of towns and villages, is about 36,000 persons.

The only main road northwards from Napier is the coach route to Taupo, which, soon after leaving the fertile Petane Valley, begins to traverse poor country, and twenty-five miles out enters the light pumice soil.

From Napier to the Wairoa the journey must be done on horseback, as there is a break of twenty-three miles between Tutira and Mohaka unfit for wheeled traffic; but this is being gradually remedied. As a natural consequence, the traffic between these two places has to be done by small steamers.

From the Wairoa a main road runs northward, through the Village of Tiniroto and on to Gisborne, a distance of seventy-five miles. For a considerable distance it runs through hilly country, and, as it has not been gravelled, wheeled traffic is suspended during the winter months; but a coach runs weekly for nine or ten months out of the year.

Between Gisborne and Opotiki, in the Bay of Plenty, communication is not good. The road, which is 120 miles in length, has been formed only to the edge of the Motu Forest, a distance of fifty miles. In the neighbourhood of the forest a large area of Crown lands has been taken up and settled in the last few years. The rest of the journey must be done on horseback.

In the country north of Gisborne, formed roads for wheeled traffic are few in number, and not continuous; but small steamers trade regularly along the coast, calling in at Tolago and Tokomaru Bays, Waipiro, Tuparoa, Awanui, Kawakawa, and other small bays.

Pastoral Industries.

The Hawke's Bay Land District is pre-eminently a sheep-grazing country. The extent of land in sown grasses was, in November, 1899, no less than 2,320,505 acres, while 2,042,789 acres were in tussock or native grass. In April of that year there were 4,612,877 sheep, 141, 017 cattle, and 27,588 horses. The value of the wool exported from the district during the twelve months ending 31st March, 1900, was £895,934, and the quantity 31,860,943 lb.

Freezing-works are now established at Tomoana, Port Ahuriri, and Gisborne, and the export of frozen meat for the year ending 31st March, 1900, was 283,629 cwt., the value being £296,018. This industry gives employment to a large number of persons, both directly to those engaged in breeding, shearing, freezing, and shipping, and indirectly to those who labour at bushfelling, grass-seed sowing, fencing, and otherwise opening up new country. Nor must the cutting of the immense amount of firewood consumed at the works be forgotten. All this benefits the settler with limited means, by providing him with funds to improve his holding, and to this is due, in a great measure, the general prosperity.

Agricultural Pursuits.

Agriculture is not carried on to the extent it might be with so much land suitable for root- and grain-crops. No doubt this is due to the profits made in sheep-farming. It is chiefly confined to the Heretaunga Plains and the flat lands near Gisborne. The soil is favourable to root-crops; potatoes range from 12 to 15 tons to the acre, and in some instances exceed this amount. Only a moderate quantity of grain is grown; barley, for which the soil seems well adapted, returning from 20 to 60 bushels of good sample to the acre.

Dairying.

Settlers are now turning their attention to dairying, and lately factories have been established in the bush districts at Norsewood, Ormondville, Maharahara, and Woodville, whilst several others are in contemplation. At the last-mentioned town a cheese-factory has been in existence for some years, and turns out an excellent article much sought after in other parts of the colony.

Timber Industry.

The timber industry is considerable, numerous sawmills being in full work in different parts of the district. In the forest between Takapau and Woodville there are twelve, with an estimated yearly output of 10,000,000 ft. This tract of forest is the one most used for milling purposes, and will yield a plentiful supply for a long time to come, notwithstanding that for years past a large amount of totara timber has been taken out of it to send to other parts of the colony. Further north there is no totara to speak of, though rimu, white-pine, and other milling timbers are to be found scattered throughout the forests, and in the Poverty Bay District puriri is found in some quantity. There were 1,691,227 superficial feet of timber, value £5,652, exported from Napier during the year ending 31st March, 1900.

Other Industries.

Other industries, such as fellmongeries, soap-works, boot, coach, and sash-and-door factories, &c., are established in the principal towns.

Climate.

The climate is generally of a mild character, and, though hot along the coast-lands in the height of summer, it is, owing to the dryness of the atmosphere, not so relaxing as in parts of the island farther north. The rainfall is light, excepting in the bush districts and high inland country.

Napier itself is recommended by many medical men as a resort for invalids suffering from pulmonary complaints, chiefly on account of the mildness of its winter season. During the year ending 31st December, 1898, rain fell only on eighty-one days, the total fall recorded being 35 in., while the average rainfall for the last thirty-three years is 37·070 in.

Towns.

Napier is pleasantly situated on the peninsula known as Scinde Island, which is joined to the mainland by a narrow shingle-bank several miles in length. It is a busy town, with a population of 9,486. The business part is on the flat land at the foot of the group of hills that take up the greater part of the peninsula. These hills, formerly barren and waste, are now occupied by numerous private residences, and the very general tree-planting has given the upper town a distinctive and pleasing character. There is an excellent water-supply, derived wholly from artesian wells of large size, and pumped by machinery to reservoirs on the tops of the hills. The shipping trade, as the large exports show, is especially active during the wool and frozen-meat season. It is still carried on at Port Ahuriri, about a mile from the town; but has recently, in a large measure, been transferred to the fine breakwater which is now almost completed. During the year ending 31st December, 1899, the ports amounted to £212,875, and the exports to £988,466.

Gisborne, the trade-centre and port of what is known as the Poverty Bay District, is a prosperous town of about 2,500 inhabitants, rapidly increasing in size and importance, as the large quantity of unimproved land in the Cook County is fast becoming settled and made productive. There are 824,129 sheep now in Cook County, and Gisborne's exports amounted to £283,906 in 1899.

Clyde, the county town and port of the Wairoa County, is picturesquely situated on the Wairoa River, about three miles from the mouth. The river is navigable for small craft as far as the village of Frasertown, twelve miles further up.

With a few exceptions, the towns and villages to the south of Napier are all situated on the line of railway running from that city to Palmerston North. The principal are: Hastings, a rising town of 3,300 inhabitants, Waipawa, Waipukurau, Dannevirke, and finally Woodville, about three miles from the Manawatu Gorge, and distant ninety-eight miles from Napier. It is at this end of the district that the Crown has, in the last few years, successfully planted settlement, and, in place of the continuous forest known as the Seventy-mile Bush of earlier days, there are now prosperous townships, with various thriving industries established.

Crown Lands.

The land held by tenants of the Crown, of whom there are 790 in the district, under the various systems of tenure, amounts to 504,221 acres, and there remain about 400,000 acres not yet dealt with in any manner.

The latter is, for the most part, suitable for pastoral purposes only, any fit for agriculture lying in small, isolated spots, widely scattered, and such as could not be selected independently of the surrounding inferior land. Nearly the whole is broken forest country, fitted more for sheep than cattle, and having an average carrying-capacity, when cleared, of about one sheep to the acre, though the best of it might possibly graze from two to three. The land is chiefly in the Hangaroa, Koranga, Mangatoro, Norsewood, and Motu Districts, and the back-country of the Waiapu County.

About 11,260 acres are now open for selection, in addition to small grazing-runs to the extent of over 42,000 acres. In the Waiau Survey District, near Waikaremoana, there are over 8,000 acres, also hilly country, of limestone formation. In the Motu District, between Gisborne and Opotiki, there are about 16,000 acres open, and in the Mata and Hikurangi Survey Districts, situated from fifteen to twenty miles inland from Waipiro, there are 13,700 acres of rough forest limestone country, at the present time not easy to get at; but a road to the block will shortly be put in hand. There are also 1,000 acres open in the Pohui District, about twenty-eight miles north of Napier, and other blocks near Dannevirke.

Native Lands.

Of the Native lands in this district, a very considerable portion has been leased to Europeans, but there still remains in the hands of the Maoris a valuable estate, comprising both agricultural and pastoral country, and including some 800,000 acres of excellent land. This land lies for the most part in the Waiapu County, towards the East Cape.

THE WELLINGTON LAND DISTRICT.

J. W. A. Marchant, Chief Surveyor.

The Wellington Land District is bounded on the north by the Districts of Auckland and Hawke's Bay, on the west by that of Taranaki, on the east by the sea, and on the south and south-west by Cook Strait. The area contained within these limits is about 6,810,958 acres. It lies between the parallels of 39° and 41° 30′ south latitude; its greatest length north and south is about 180 miles, and its mean width east and west about sixty miles.

General Physical Features.

The district is divided into two well-defined parts by a mountain range, which forms part of the backbone of the North Island. At its northern end this range—there known by the name of Ruahine, and averaging a height of about 4,000 ft.—divides Wellington from Hawke's Bay; but after passing the point where it is intersected by the Manawatu River, the range takes the name of Tararua for many miles, until, at about forty miles from the termination on the shores of Cook Strait, it divides into two main ranges, known respectively under the general names of Rimutaka and Tararua, both ranges averaging from 2,500 ft. to 3,500 ft. in height, the highest point being Mitre Peak, 5,154 ft. Parallel to the main range, and divided from it by the Wairarapa Plain and the undulating country to the north, is a series of ranges at a few miles inland from the East Coast, known as the Puketoi, Taipo, Maungaraki, and Haurangi Ranges. Lying on the northern border of the district are the Kaimanawa Ranges, offshoots from the Ruahine. They are for the most part open and grass-covered, rising to a mean height of about 4,500 ft. Westward from the latter mountains, and divided from them by a deep, broad valley, in which flow the Waikato and Wangaehu Rivers, is the volcanic chain of mountains containing Ruapehu, 9,008 ft., and Ngauruhoe, an active volcano, 7,515 ft. high. The long sweeping curve of Cook Strait, forming the south-western limit of the district, is bordered, from the Patea River to within thirty miles of Wellington, by a comparatively level and undulating country, now nearly all under cultivation, having an average width of about fifteen miles. This is one of the finest parts of the colony, and is celebrated for its stock-raising capabilities. It was originally in a great measure open, though the southern part, where the plain is narrowed in between the sea and the Tararua Range, has a good deal of forest on it, now fast disappearing under the axe of the settler.

Inland of this coastal plain, at varying distances from the sea, the country gradually rises to a mean height of about 1,500 ft. to 1,800 ft., and becomes a good deal broken in character. It was originally forest-clad almost throughout. It is much cut up by rivers and streams flowing from the interior to the sea, of which the principal, commencing from the north, are these: The Waitotara, the Wanganui, the Wangaehu, the Rangitikei, the Oroua, the Pohangina, and the Manawatu, which last, after leaving the gorge in the Ruahine Ranges, runs through level land to its mouth in Cook Strait. This broken country, being everywhere composed of papa, or marly formation, which takes grass excellently, promises in the near future to be a large sheep-carrying district.

At about fifteen miles south of the volcanic peaks of Ruapehu Mountain the papa country terminates in a fairly well-marked escarpment, giving place to a more level and undulating country formed of volcanic matter, the greater portion of which is forest-clad, though on the south-east, east, and west sides of that mountain there are open grassy plains, of no great fertility, but yet suited to pastoral pursuits.

To the eastward of the main range formed by the Rimutaka and Tararua Ranges is the great depression known at its southern end as the Wairarapa Plain, which gradually rises northwards from the lake of that name into wooded, somewhat broken country, of no great height, at a distance of some forty-five miles from the sea. From here the country falls again slightly to the Upper Manawatu River, the depression in this part being marked by the extensive flats in the neighbourhood of Pahiatua, and by the shallow valleys of the Mangahao, Mangatainoko, and Tiraumea Rivers and their branches. For thirty miles from the sea this great valley is mostly open, with patches of forest here and there, but becomes more plentifully wooded at the base of the Rimutaka and Tararua Ranges. The quality of the soil varies from light and stony, on the Wairarapa Plains proper, to rich papa country, as the northern end is approached. The southern end of this country is watered by the Ruamahanga River and its tributaries. Generally the district is a pastoral one, though agriculture is also pursued successfully. The neighbourhood of the Puketoi Ranges is in many places composed of limestone, and promises in the future to become a very rich pastoral district, such as will carry a considerable population. In the forks formed by the Tararua and Rimutaka Ranges the Hutt River takes its rise, and runs in a southerly direction through an undulating or level country, finally falling into Port Nicholson. The valley contains some very fine land, generally held in small holdings.

Plains.

The two most important of these have already been mentioned. On the eastern side of the main range the Wairarapa extends northward from the lake of that name for about forty-seven miles, with an average width of about nine miles. In some parts, especially on the flats along the Ruamahanga River, the soil is alluvial and rich; in others, though stony and unfit for cultivation, it is nevertheless grassed, and carries stock well in the winter and rainy seasons. The plain is watered by the Waiohine, Waingawa, and Ruamahanga Rivers, and contains altogether about 200,000 acres, much of which is good agricultural land. On the other side of the district, west of the Tararua and Ruahine Ranges, there is a large block of land so nearly level that it may be called a plain, extending from Paikakariki (thirty miles from Wellington) to Marton (a few miles north of the Rangitikei River), and contains about half a million acres. Starting as a narrow strip between the hills and the sea, the plain widens out by degrees until at Fielding it is at least twenty miles in breadth. Along the beach runs a fringe of sandhills, but behind this is to be found some of the best farming and grazing land in the colony. There are two plains inland—Murimotu and Waimarino—both lying some 2,200 ft. above sea-level, in the neighbourhood of Mount Ruapehu, the former to the south and the latter to the north-west of the mountain. The soil is covered with a coarse native tussock, and, though capable of carrying stock, is of a light porous nature, and cannot be classed as agricultural land.

Rivers.

First among these is the Wanganui—"the Rhine of New Zealand"—with a length of over 110 miles from its source, near Mount Tongariro, to its outlet. The Rangitikei, the next in size, rises in the Ruahine Mountains, and flows through the Awarua country, where it is joined by the Hautapu and other large tributaries. After a course of over a hundred miles it reaches the sea some little distance below the Township of Bulls, on the West Coast. The Manawatu is third in importance. Rising in the Ruahine Range, it flows through the picturesque Manawatu Gorge, joining the sea at the port of Foxton. Lesser rivers on the West Coast are the Waitotara (north of Wanganui), the Wangaehu (which takes its rise in Mount Ruapehu, and from its source to its mouth is so strongly impregnated with sulphur that fish cannot live in it), the Turakina, and the Otaki. The only other rivers of any size are the Hutt (Heretaunga), emptying itself into the Wellington Harbour, the Ruamahanga, flowing through the Wairarapa Valley and lakes into Palliser Bay, and on the East Coast the Pahaoa, Aohanga, and Akitio.

Lakes.

The only lake of any size in the Wellington District is the Wairarapa, lying between the Rimutaka and Haurangi Ranges, towards the southern end of the Wairarapa Valley. It is about twelve miles long and four broad, and is connected by the Ruamahanga River with Onoke, a small lake separated from Palliser Bay by a narrow shingle spit only. A passage through the spit is opened from time to time when the lake rises above its natural level and overflows the low-lying flats along its margin. Water-fowl of every kind—among them numbers of black swans—are to be found round about these lakes.

Scenery.

The views obtained from the railway-line in the ascent and descent of the Rimutaka Range are among the best in the neighbourhood of Wellington, and the road through the Forty-mile Bush was long considered one of the most beautiful drives in the North Island; but much of its pristine beauty has been destroyed by the felling of the bush consequent on the increase of settlement. The same may be said of the Manawatu Gorge, famed in the old coaching days for its lovely scenery, but now sadly marred by the construction of the railway-line. The most beautiful drive now left is through the Awarua Bush, from Ohingaiti to Moawhango. From this road, as it winds round the spurs, most charming glimpses are obtained of the Rangitikei River and the blue hills beyond, and at other points the traveller looks up deep ravines where the graceful fern-tree stands out in bright relief against the dark green of the native bush. Another road from Pipiriki, on the Wanganui River, to the Murimotu Plain, traverses one of the most magnificent forests in the North Island. Here the bushman's axe has felled only the timber standing on the road-line, and the track runs beneath the shade of the largest and stateliest maire and rimu known. Beautiful as these drives are, the scenery on the Wanganui River is still more lovely. A few miles below Taumaranui the river enters a series of gorges, shut in by high precipitous cliffs. Sometimes the canoe glides slowly through quiet reaches, sometimes shoots rapids which make the traveller hold his breath till they are passed, and then again traverses places where the water is ever in turmoil, boiling and eddying in whirlpools, taxing the energies of the most skilful Native steersman, and testing the nerve of the most courageous tourist. These experiences, with the views obtained of the banks, densely wooded even where the papa rock rises almost straight from the water's edge, make the eighty miles journey from Taumaranui to Pipiriki an event not easily effaced from the memory. Between Pipiriki and Wanganui excellent steamers are now running, so that the beauties of the lower part of the river may be seen by all without trouble or discomfort.

Forests.

The Wellington District is essentially a forest country, for out of the 6,810,958 acres contained within its borders about 3,000,000 are still under bush. By far the largest forest is the Waimarino, having an area of at least three-quarter million acres, a large portion of it being nearly level land, containing magnificent timber, principally totara, maire, matai, rimu, and other pines. This forest is as yet hardly touched, though one sawmill has lately been started at Raetihi to cut timber for the settlers now making their homes in the neighbourhood. The distance from the settled districts or any port will render the timber in this part useless as a marketable commodity until the country is opened up by the proposed Auckland Main Trunk Railway.

The next in size is the Rangitikei-Hautapu Forest, containing an area of about 350,000 acres, a considerable portion in the Awarua Block being first-class milling timber, which will be available as soon as the extension of the Hunterville Railway-line taps it. Between this and the Waimarino Forest there is a large extent of bush-land, drained by the Turakina, Mangamahu, and Wangaehu Rivers, extending up to the Wanganui River, and containing about 300,000 acres. Very little of this, from its inaccessibility, will be utilised for sawmilling purposes, but a great deal of it, together with a further block of 230,000 acres on the west side of the Wanganui River, will be cleared by the settlers and sown down with grass. A further block of about 100,000 acres of forest-land lies in the Pohangina Valley and on the slopes of the Ruahine Range. A large portion of this has been taken up and is now being settled.

The forest-land on the West Coast extends from Pukerua to the Manawatu Gorge, on the west side of the Tararua Range, and contains an area of about 300,000 acres, the bulk of it being fit only for turning into pasture. The most available part of it, alongside the Wellington–Manawatu Railway, is being extensively cut into by sawmillers at Levin and other places on the line.

After this in size is the forest on the eastern slopes of the Tararua Ranges, extending from Featherston to the Manawatu Gorge, which includes what remains of the well-known Forty-mile Bush, containing probably about 175,000 acres. Portion of this area is being quickly denuded of timber by the sawmills established at Pahiatua, Newman, Hukanui, Eketahuna, and by settlers. A tract of about 50,000 acres lying to the east of the Puketoi Range cannot be utilised for milling purposes, as it is not tapped by any branch railway-line, and its distance from the main line would probably render the business unprofitable except for local purposes. Nor are there any suitable ports along the coast where timber could be shipped.

The other forests are, one near Lake Taupo, and the Haurangi Forest on the east side of the Wairarapa Lake. These consist for the most part of birch-covered hills, and cannot be considered as valuable for milling purposes.

Soil.

It may be said that the Wellington Land District contains within its borders a greater quantity of good land than any other in the North Island, very little, except the mountain-tops, being unfitted for use, while some of it is of very superior quality, suited for the growth of the productions of every temperate climate. As much of it is still forest-clad, settlers must look forward to having to make their farms by felling and burning the bush before grass can be sown, and, as it takes from ten to fifteen years before the plough can be used in bush-land, grazing, for which the climate and soil is admirably adapted, will be the principal industry for some time to come. It is generally calculated that the cost of felling and burning ordinary bush varies from 25s. to 35s. an acre. To this must be added about 20s. for seed and fencing. It is no uncommon thing for a return to be received at from twelve to eighteen months after felling. The usual practice is to put sheep on to the new lands soon after the grass has obtained a good hold. The process of improving the lands by the gradual "logging up" and burning of the fallen tree-trunks is a long one, but it pays in the end, for in this way fine pasture-lands are obtained on the hills, and agricultural lands on the flats.

Climate.

The climate of Wellington District is healthy and mild, the mean annual temperature (in the city) being 55·4, whilst the mean rainfall is 48·49 in. per annum. The rainfall differs, however, according to locality. Inland and near the ranges it is much greater. The top of Ruapehu Mountain is covered with perpetual snow, which lies also on the tops of Kaimanawa, Ruahine, and Tararua in the winter. Frosts are heavy in the interior.

Harbours and Ports.

The coasts of Wellington are not so well supplied in this respect as are some other parts of the colony; but what is lost in number is made up in a great measure by the excellence of the chief haven—Port Nicholson—which, from the position it occupies, at the meeting-point, as it were, of the coastal traffic of both Islands, and from its sheltered position and depth of water, may be considered one of the most convenient harbours in the world. The Wanganui River, which has been considerably improved by artificial means, is the second port in the district, and has a considerable trade carried on by coastal steamers. Patea and Manawatu Rivers are also used by coastal steamers, whilst several other places along the shore afford shelter and stopping-places, according to the direction of the wind. The extension of railways along both coasts has, in a large measure, done away with the inconveniences arising from want of harbours.

Towns.

The capital of the colony—Wellington—is situated in the south-west angle of Port Nicholson, on Lambton Harbour. The wharfage accommodation here is second to none in the colony, and the wharves present always a busy scene of life with the numerous steamers and sailing-vessels continuously loading or discharging. As many as four ocean-going steamers are not unfrequently seen alongside, loading with wool, frozen meat, and other products, for conveyance to Europe. The port possesses a patent slip at Evans' Bay, within a short distance of the city. Founded in 1840 by the New Zealand Company, the city occupies the flats skirting the original shore-line, long since obliterated by the reclamation of the foreshore, which is now mostly covered with fine buildings. Rising close behind the old shore-line is a range of hills, the lower parts of which are all built over. The population of the city at the present time is about 43,000. Being the seat of Government, it contains the residence of the Governor and the headquarters of the Government departments, which are placed in what is said to be the largest wooden building in the Southern Hemisphere. There are several noticeable public buildings, amongst which must be mentioned the Parliamentary Buildings, containing a valuable library, General Post Office, Government Life Insurance Offices, Public Library, School of Art, and Harbour Board Offices. The Colonial Museum, under the management of Sir James Hector, and the Botanical Gardens, are also worthy of notice. The city is lighted by electricity, and its streets are well kept and clean, whilst an excellent supply of water is obtained from the Wainui-o-mata River, on the other side of the harbour. The principal industries are represented by iron- and brass-foundries, sawmills, soap-and-candle works, boot-factories, aërated water, meat-freezing works, coach-building, rope-and-twine works, sash-and-door factories, brick-, tile-, and pottery-works, besides a match-factory and innumerable other smaller works of various kinds. The city is increasing with rapid strides; its excellent position, together with the fine back-country, places it in the front rank of New Zealand towns. Its principal suburbs are Onslow, Melrose, and Karori, each containing from 1,000 to 2,500 inhabitants.

The Township of Petone is situated near the mouth of the Hutt River, seven miles from Wellington, on the railway-line. It has a population of 3,250, and is a rising township, containing the Government Railway Workshops, a woollen factory, with a meat-freezing and preserving establishment. The Lower Hutt, almost immediately adjoining, has also a large population, and some well-built residences with beautiful gardens. The Upper Hutt, situated at the head of the valley, has many small farms, owned by some of the very early settlers. The railway here starts the ascent of the Rimutaka Range.

Featherston, situated at the foot of the Wairarapa Valley, fifty-one miles by rail from Wellington, is a small township, with butter- and cheese-factories in the neighbourhood. Roads lead from it to Martinborough and the East Coast, and also down the Wairarapa Valley to Palliser Bay.

Greytown North is situated three miles off the main line of railway, and near the middle of the Wairarapa Valley, fifty-three miles from Wellington. The chief industries are sawmilling and coachbuilding. The population is 1,100 persons.

A few miles further north is the Town of Carterton, where are to be found timber-mills, cheese-factories, &c., and a population of 1,300 persons. There is some splendid farming land in this locality on the banks of the Ruamahanga River.

Masterton is situated at the head of the Wairarapa Valley, on the Wellington–Eketahuna Railway, sixty-seven miles from the capital. It is the centre of an agricultural and pastoral country, and has a population of 3,800. It is lit by gas, and has several industries, such as fellmongery, rope-making, flax-mills, coach-factory, &c., and, in addition, has some excellent fish-breeding ponds, from which many of the rivers in the colony have been supplied with trout. An important coach-road leads from here through a fine pastoral district to Tinui, and on to Castlepoint on the East Coast, where a large quantity of wool is annually shipped to Wellington for export.

North of Masterton is the Opaki Plain, and beyond is the entrance of the once famous Forty-mile Bush, which is now fast becoming a thriving pastoral, agricultural, and dairying district. Butter-factories have been established at Hastwell and Mauriceville, where a large number of Scandinavians are settled, forming hard-working and thriving communities.

Eketahuna is, by rail and road, ninety-four miles from Wellington. From there a main road leads to Alfredton, and up the Tiraumea Valley, through the East Puketoi country, to Weber and Dannevirke, on the Napier Railway-line.

Pahiatua, a rising township about fifteen miles beyond Eketahuna, has a resident population of 1,200. It is the county and market-town of a large and improving district, and will probably also become the centre of a large dairying industry. Several branch roads run from Pahiatua into the adjoining country, the principal one leading to Makuri through a beautifully-wooded gorge. From there another branch road passes over the Makuri saddle into the East Puketoi country.

On the West Coast, Pahautanui, at the head of the Porirua Harbour, is the centre of a small agricultural community of early settlers, the old coach-road to

Paikakariki running through it; and there is a branch-road leading over to Hayward's in the Hutt Valley. Paikakariki, twenty-seven miles from Wellington, may be considered the commencing-point of the West Coast settlements, which are springing up in every available valley along the coast. At Otaki, forty-seven miles from Wellington, by rail and road, there is a small township, and a large Native settlement. At Manukau, Levin, and Shannon, small townships have arisen since the Manawatu Railway Company opened up the land round about, much of it being rich farming and grazing country. Between Shannon and the Manawatu River there is a large raupo or flax swamp, named Makurarua, containing at least 15,000 acres of fine alluvial soil, which is being gradually drained by the company, and will probably at some future period become grazing-land.

Foxton, a township at the mouth of the Manawatu River, is a small shipping port, containing about 1,100 inhabitants. It is connected with Palmerston North by a branch railway, and is the outlet for a large area of good agricultural land.

Palmerston North is an inland town at the junction of the Wellington–New Plymouth and the Palmerston–Napier Railways, situated on a fine plain in the midst of a most excellent farming district at a point eighty-eight miles from Wellington, and 110 miles from Napier. Its population is now upwards of 6,300. It is lit with gas, and has a good water-supply. A fine bridge across the Manawatu River connects it with the Fitzherbert Block, a tract of rich agricultural land. Nine miles from Palmerston is the Township of Ashhurst, at the mouth of the Pohangina Valley, up which settlement has now extended for a distance of twenty-two miles. Several large farm-homestead association blocks have been selected up this valley.

Feilding, 104 miles from Wellington by rail, with a population of 2,150, is becoming one of the most important towns on the West Coast, as it is the centre of a very fine locality, and the outlet for a large tract of inland country, the forest on which is fast being felled. A coach-road connects it with Birmingham (Kimbolton) and Pemberton, about thirty-two miles distant. On the seaward side for a distance of twenty miles there is also much good agricultural land, extending on the north-west to the Rangitikei River, and including the Township of Halcombe. There are several dairy factories established in the neighbourhood.

Marton, 123 miles from Wellington by rail, with a population of 1,200, one of the earliest of the West Coast settlements, is also the centre of an agricultural country. The Township of Bulls, on the north side of the Rangitikei River, lies between Marton and the coast. From Marton Junction the southern part of the North Island Main Trunk Railway extends up the Rangitikei Valley to Hunterville, a good-sized township in the centre of a grazing district, and from thence as far as Mangaonoho, twenty-three miles from Marton; from there a coach-road has been made to Ohingaiti, beyond the Makohine, where a large viaduct is now being built so that the railway traffic can be continued. From Ohingaiti the coach-road has been made to Turangarere, and from thence to Tokaanu, on Lake Taupo, in the Auckland District.

Wanganui, situated near the mouth of the river of that name, is the oldest town after Wellington, from which it is 151 miles by rail—the distance by sea being only a hundred and twenty miles. It is the centre of an excellent farming district, and has a considerable trade, and several manufactories. Near the mouth of the river are freezing-works, the meat from which is conveyed by lighters to the large English steamers which lie off the mouth of the river. The town is lit with gas, and has a good water-supply. Not far from it are some extensive railway workshops. Altogether it is a thriving place, with a population of about 6,800. The Wanganui River is navigable for a light-draught steamer up to Pipiriki, a distance of fifty-six miles, and for canoes a further distance of eighty miles to Taumaranui. A branch road extends from Pipiriki through the Waimarino Forest to Ohakune, and on to Karioi on the Murimotu Plains, thence by way of Turangarere and Moawhango to Napier.

Crown or Native Lands available for Future Settlement.

Kaitangata, Te Mara, and Kaiparoro Blocks.—These blocks, containing about 58,000 acres of second-class pastoral country, were opened for sale in September, 1893. The lower portions have been taken up and are being settled on, but the balance of the blocks, to the extent of about 35,000 acres, has lately been withdrawn from sale, with the object of having this area more fully explored, back lines laid off, road access provided for, &c. The remaining unsold portions of these blocks will be re-offered when a new scheme of subdivision has been approved by the Land Board.

Tauakira Block.—Situated near Athens, on the Wanganui River; about 26,700 acres. This consists chiefly of country suitable for second-class pastoral occupation, in areas of from, say, 1,000 acres and upwards.

Mangapapa Block.—This block is situated on the east side of the Waitotara River, and contains land suitable for pastoral purposes. An area of about 800 acres will shortly be offered.

Town Land.—Further sections in Raetihi, Ohakune, Taihape, Makuri, and Levin Townships will probably be opened for sale at Wanganui, Pahiatua, and Wellington on dates due notice of which will be given in the local papers.

About 20,000 acres, known as the Retaruke Block, on the Wanganui River. It is proposed to open this under the small grazing-run system during next summer.

Motukawa Block.—8,180 acres, situated to the north-west of Taihape, is now under survey, and will shortly be in the market.

Horowhenua Block.—17,500 acres near Levin is now being subdivided, and will shortly be offered under village homestead and optional systems.

Forfeited Farm-homestead Sections.—A number of farm-homestead sections which have reverted to the Crown in the different Association Blocks in the Wairarapa North and South, Rangitikei, Wanganui, and other counties, are now being prepared for sale, and will be re-offered at early dates under the optional systems of the Land Act.

Due notice of these dates will be given in local papers, and sale lithos, with full particulars, will be published.

Improved-Farm Settlement Lands.

All the available land suitable for holding under the improved-farm conditions has now been allotted, but if any of the sections now held under this system should be forfeited, they will probably be ballotted for amongst applicants in the district who are known to be of good character and likely to make good settlers. If further blocks of suitable land for this system are found, they will be cut up and opened on the same conditions.

Lands Open and Available for Ordinary Selection.

Awarua Block.—Out of the Awarua Block, lying north of Ohingaiti, several blocks, containing over 140,000 acres, have been purchased from the Natives by the Crown. A great deal of this land is of first-class quality, though other parts will be treated as second-class land only—not that the soil is inferior, but because the land is too broken to be worked otherwise than as pastoral country in good-sized holdings. Several blocks have been surveyed; one of 15,000 acres west of Mangaweka, or Three-Log-Whare Township, was opened for sale in 1895, and subsequently another, of 7,500 acres, between the Hautapu and Rangitikei Rivers. A further sale of quarter-acre sections in the Mangaweka Township has taken place, and the Taihape Township has been subdivided into town or suburban lots, of which some have been offered for sale. A block of 12,500 acres lying south-east of Moawhango was opened for application, and this has all been taken up. Further purchases in the Awarua Block, to the extent of about 97,000 acres, have been made, and the surveys are being put in hand.

North of the Kawatau, on the east side of the Rangitikei, a block of 17,173 acres of second-class pastoral country was opened for selection, 2,366 acres of which are still open for sale.

Waitotara.—The Te Ngaue Block, 1,546 acres of second-class pastoral land, is now open for selection.

Waimarino.—Three blocks, containing about 10,000 acres, have had road-lines laid out through them, and are now open for application. A further block of about 46,550 acres, on the Retaruke, Oio, and Kaitieke Rivers, has had roads surveyed through it, and is now open for selection. There is an additional block of 27,000 acres, which is being surveyed, and will be offered as grazing-runs. 32,000 acres at the head of the Retaruke and Makino Streams have also been roaded. The rest of the Waimarino country, containing about 250,000 acres, is more or less broken, and will probably be opened as second-class pastoral country or small grazing-runs, to enable it to be taken up in larger sections.

Rangiwaea No. 2 Block.—One section of an area of 580 acres is open for selection in this block, which is situated between Upper Wangaehu and Turakina Rivers.

A large number of forfeited Farm-homestead Sections are now open for selection in the following blocks: Gladstone, Hunterville No. 2, Sommerville, Palmerston North Knights of Labour, Marton Nos. 1, 2, and 3, Pohangina and Umutoi, Delaware, Onslow, Pahiatua Nos. 1, 2, and 4, Masterton Reform, Christchurch, Woodville, Mecalickstone, Waimarino, and Dannevirke Centennial.

Pipiriki Township.—Leases of forty-two allotments for the term of twenty-one years, with right of renewal for a further term of twenty-one years, are open for application by tender.

Tokaanu Township.—Leases of one hundred and one allotments for the term of twenty-one years, with right of renewal for a further term of twenty-one years, are open for application by tender.

Wharangi (Foxton Sanatorium).—Leases of twenty-three allotments for the term of fourteen years are open for application by tender.

Ohakea Settlement (Bulls). — Leases of three allotments are open for selection.

Tongariro, Rangipopo, and Kaimanawa Blocks.—105,000 acres have been acquired by the Crown, but none of it is likely to be taken up for settlement for a long time to come.

"Crown Land Guides" and sale lithographs, giving full particulars of lands open for selection in this Land District, will be forwarded to any one on application to the Commissioner of Crown Lands, Wellington.

Native Lands.

Townships are now surveyed at Pipiriki, Tokaanu, Parata, and Potaka; sections in the two former are open for leasing under "The Native Townships Act, 1895," and the other two are being prepared for selection.

The allocation of the Crown's purchases in the Raetihi, Tauakira, Maungakaretu, Mangapapa, Raketapauna, Rangiawaea, Ngaurukehu B., Motukawa Nos. 1 and 2, Te Tuhi Nos. 2 and 4, and Kahakaha Blocks, has been made by the Land Court; and the surveys of the land allotted are in hand, and they should be available for settlement soon after the surveys are completed.

The blocks under lease to Europeans contain about 475,000 acres, the principal being the Murimotu, Rangipowaiau, Owhaoko, Mangohane, and Ruanui, occupied by Mr. Studholme; and the Oroumatua, leased to Mr. Birch. Of others passed through the Native Land Court there are about 526,000 acres which are fit for settlement, the principal being the balance of the Awarua and the Motukawa, Raketapauna, Te Tuhi, and Rangiwera Blocks in the central district, Raetihi in the Waimarino district, Tauakira, and Ohotu, on the Wanganui River. Those not suitable for settlement at present are the Te Hautu, Ohuanga, and Kaimanawa, on the east side, and the Oahukura on the west side, of Tongariro Mountain, containing an area of about 345,000 acres.

The Native lands which have not passed the Native Land Court contain an area of about 140,000 acres, the principal being the Tupapanui, Mairekura, Tawhitinui, and Papahaua Blocks, on and between the Wangaehu and Wanganui Rivers, and some others on the west side of the latter river.

Pastoral and Agricultural Industries.

The pastoral industry is by far the more important, the total area in grass in 1900 being 2,416,232 acres as compared with 97,389 acres under crop. Of the area in crop, 9,829 acres were in wheat, 22,664 in oats, and 39,651 acres in turnips or rape, the rest being in potatoes or other crops.

The following figures will show the average return per acre of grain, for the year 1900: Wheat, 30·43 bushels; oats, 41·99 bushels; barley, 36·85 bushels.

The area in sown grass now exceeds that in any other district in the colony, though the area under crop is very small as compared with either the Otago or Canterbury Districts. In April, 1899, there were 4,070,737 sheep; and in November, 1899, the cattle numbered 234,526, and horses 40,857. The total area in gardens is given as 2,524 acres; in orchards, 3,541 acres; and in plantations, 3,916 acres.

Dairy Industry.

Both soil and climate are well adapted for the production of butter and cheese, and hence we find creameries and butter-factories increasing in number very considerably each year, and the export constantly augmenting.

Twenty-nine butter- and cheese-factories were returned in October, 1899, as at work in the Wellington Provincial District.

Phormium Tenax.

The principal flax-mills working are at Featherston, Carterton, and Martinborough, in the Wairarapa, and at Foxton on the West Coast. This industry fluctuates greatly, in accordance with the price ruling for the dressed article. In 1896 thirteen mills were at work, employing 207 men and 35 boys; the machines driven by water-wheel or engine working up to 124-horse power.

Timber Industry.

Sawmills are to be found in different parts of the district where the means of communication are sufficient, the timbers cut being principally totara and red pine, both of which are largely used in house construction and other works. Others of the native woods are very beautiful, but are utilised only to a small extent.

The principal mills are at Pahiatua, Eketahuna, Masterton, and Carterton, in the Forty-mile Bush and Wairarapa districts, and at Levin on the West Coast. besides which there are several mills in Wellington for dressing the rough material, In the whole district there were in 1896 sixty-four mills, of an aggregate of 1,117-horse power, engaged in this industry, employing 975 hands, the output of sawn timber being 34,605,504 ft., and the total value, including posts and rails, resawn timber, doors, sashes, &c., £157,107, which, next to Auckland, is the highest for any provincial district in the colony.

THE MARLBOROUGH LAND DISTRICT.

C. W. Adams, Chief Surveyor.

Boundaries.

The Marlborough Land District, occupying the north-east corner of the Middle Island, and containing about 2,635,000 acres of land, is bounded generally on the north and east by Cook Strait and the East Coast as far as the Conway River; thence by that river to its junction with the Towy River; from this point, by straight lines, rivers, and the summits of watersheds to the western side of Tennyson Inlet, Pelorus Sound. From the Conway to the Acheron River it abuts on to the Canterbury Land District, and from that river to Pelorus Sound it is bounded by the Land District of Nelson.

The widest part of the district is from Cape Campbell to Tophouse, a distance of about sixty-seven miles, and the extreme length from Cape Jackson to the Conway is 120 miles.

Physical Features.

The district throughout is generally mountainous, but none even of the highest peaks are covered with perpetual snow, although Tapuaenuku, the highest of the Inland Kaikouras, attains an altitude of 9,462 ft. Of the Seaward Kaikouras, or Looker-on Mountains, the highest points are Kaitarau and Whakari, which are 8,700 ft. and 8,500 ft respectively. There are several lesser peaks, from 4,000 ft. upwards.

The view from Kahautara Bluff, south of Kaikoura Settlement, looking northwards, when the Looker-on Mountains are snow-capped, is said to be one of the finest in New Zealand.

Geologically, the district may be briefly described as follows: North of the Wairau River the rocks belong chiefly to the Upper and Lower Devonian series, with a belt of Silurian between them, embracing the country along the west of Queen Charlotte Sound to Cook Strait. Within these series auriferous deposits are found, and at present worked at Mahakipawa, Wakamarina, and Wairau Valley. In Endeavour Inlet an antimony-mine has been worked for some time. The country south of the Wairau River may be said to belong chiefly to the Carboniferous Age, with patches, along the coast and up the Clarence Valley, of Cretaceo-Tertiary and Lower Greensand formations; while along and between the Awatere and Clarence Rivers volcanic formation and numerous intrusive dykes occur. The Red Hills also, at the head of the Wairau Valley, are of volcanic origin.

Coal has been discovered in the neighbourhood of Picton, and in the Clarence Valley, but none has been as yet successfully worked within the district. A narrow belt of Tertiary limestone, suitable for building purposes, extends, with small interruptions, from Cape Campbell to the boundary of the Canterbury Provincial District. The Marlborough land may be divided into three classes: Open land, generally covered with associated grasses; forest-land; and intermediate, or land partly forest, partly covered with scrub, fern, or other rank vegetation. This original condition of the soil naturally gave rise to a localisation of industries, and a very unequal distribution of settlement. Thus the open country was taken up for pastoral purposes; in the forest country the timber industry was developed, and the intermediate land passed into the hands of farmers. Though agriculture is now extending into the pastoral and forest country, and considerable areas of forest-land have been cleared and laid down in grass, the portions of the district characterized by these respective industries are still well defined.

In the northern part of the district, bounded by Cook Strait, numerous deep fiords and bays run far into the land. The principal of these are Pelorus and Queen Charlotte Sounds, Tory Channel, Port Underwood, and Port Gore.

These Sounds are very picturesque, but the hills surrounding them are not so rugged and precipitous as are those of the thirteen celebrated Sounds on the west coast of Otago and Southland.

Though generally steep, the land is not too rough to be used for pastoral purposes, and nearly all the land in the Sounds is occupied by thriving settlers.

Pelorus Sound, the most extensive and picturesque, is thirty-four miles long, following the course of the main channel, with the Town of Havelock at its head. There are many bays and inlets branching off in all directions; the largest of these is Kenepuru Sound, fourteen miles long. Pelorus Sound, including its branches, has a shore line of over 300 miles in length, not counting islands.

Queen Charlotte Sound is the next in length, being thirty miles from its entrance to its head; it also has many bays and inlets, one of which is Picton Harbour, twenty-five miles from the entrance.

Tory Channel is ten miles long, and forms the most direct line of communication between Picton and Wellington. The distance from Wellington Wharf to the entrance of Tory Channel is about forty miles, and about twenty more to Picton.

The shore-line of Queen Charlotte Sound and Tory Channel is over 200 miles in length. The entrance of Queen Charlotte Sound is about twenty miles distant from that of Pelorus Sound, and this latter is about twelve miles from the French Pass. Generally there is deep water in all the sounds and bays, and good anchorage can be found near the shore. The country is hilly everywhere in the neighbourhood of the Sounds, the highest point being Mount Stokes, 3,951 ft. above sea level.

Rivers.

Four considerable rivers, the Wairau, Awatere, Clarence, and Conway, rise towards the western boundary of the district; the two former, running east and north, fall into Cook Strait; the two latter, taking a southerly and easterly course, discharge into the sea on the eastern side of the Island. These rivers water large and fertile valleys, but none can be entered by vessels except the Wairau, which is navigable for small steamers for about ten miles from its mouth.

Plains.

The Wairau Plain, containing about 65,000 acres, on which stands Blenheim, the capital of Marlborough, is the principal block of agricultural land within the district. The soil, generally good, is, on the lower or seaward side of the plain, extremely fertile, especially in the neighbourhood of Tua Marina, Spring Creek, and near Blenheim, which is surrounded by numerous gardens, with rich deep mould, and well sheltered with trees. The average yield of wheat for the plain is about 25 bushels per acre; of oats and barley, 35; of peas, 30; and of potatoes, 10 tons per acre. Hops have been successfully grown for many years in the neighbourhood of the town, but, owing to the high price of labour, their cultivation has not extended. The plain, traversed in all directions by good macadamised roads, and dotted over with numerous comfortable homesteads, standing in clumps of trees amidst well-cultivated fields, has already an old-world appearance. More than half the population of the Marlborough Land District—12,677, according to the last census—is centred in the Town of Blenheim and on the Wairau Plain. Besides this plain there are several thousand acres of terrace flats and valleys along the larger rivers, notably at Starborough, on the Lower Awatere, all suitable for closer settlement, and capable of sustaining a large population.

Lakes.

There are not any lakes worthy the name. The largest is Kapara te Hau, more familiarly known as Grassmere, situate on the coast between the Awatere River and Cape Campbell. It is about three miles in diameter, and very shallow, being, indeed, no more than a lagoon, as during a dry season there is little or no water in it.

There are two other lakes of small size, viz.,—Lake Elterwater, four miles south of Lake Grassmere, and Lake McRae, situate in the open country between the Awatere and the Clarence Rivers.

Forests.

The portion of Marlborough north-west of the Wairau River, extending to the boundary of the Nelson Land District, and including the County of Sounds, in all about 280,000 acres, was originally covered with dense forest. In the valleys and on the lower hill-slopes, rimu, kahikatea, matai, totara, miro, and tawa were the principal forest-trees. The higher portion of the hills and steep spurs are clothed with the various species and variety of birch (beech), to which along the shores of the Sounds were added pukatea and kohekohe, the latter locally called cedar.

Since 1860 sawmills have been at work in various parts of the district. Thirty-two mills have been erected, and have worked for longer or shorter periods. Havelock, on the Pelorus Sound, is at present the headquarters of the timber trade.

The hills along the shores of the Sound will, for many years, furnish birch sleepers. There are other timbers left in places, but nowhere sufficient to justify the erection of a mill, unless pukatea wood, hitherto neglected, could be utilised. It is a light, tough timber, well adapted for boat-building and for packing-cases. The quantity of pine timber remaining in the Kaituna and Onamalutu Valleys is small, but there is a good supply of birch and other wood, suitable for fencing and firewood. On these valleys the Wairau Plain is mainly dependent for timber.

The Pelorus Valley, with its tributaries the Wakamarina, Rai, Ronga, and Opouri Valleys, still contain about 300,000,000 ft. of convertible timbers, exclusive of the birch, of which there is a large amount of the best quality on the hills and terraces. The Wairau, Blenheim, and other districts extending southwards must depend for the future on this source for all their building material.

In the neighbourhood of Kaikoura, along the base of Mount Fyffe, and in the Hapuku Valley, there is another small block of forest-land in which three small sawmills have been erected. The quantity of timber suitable for sawmill purposes in this block is very limited, but it will furnish the neighbouring country with firewood and fencing for many years.

Soils and their Uses.

The Wairau Plain, which is the principal block of agricultural land, has been already dealt with. The second agricultural centre is in the neighbourhood of Kaikoura. The land extending along the base of Mount Fyffe, between the Kohai and Hapuku Rivers, about 13,000 acres in extent, is held in small or moderate-sized farms; the soil is good, the block known as "The Swamp," between Mount Fyffe and the Peninsula, being particularly rich. In the Pelorus, Kaituna, and Onamalutu Valleys, and in the Sounds, settlers following in the wake of the sawmills have already converted much of the land worked over into grazing-farms. The land is of three descriptions—alluvial flats, terraces, and hill-sides. On the flats in the larger valleys the soil is rich, producing heavy crops of oats, peas, beans, and potatoes, wherever it has been brought into cultivation. The terrace-land varies much in quality, but generally grows good grass, as do also the hills on which tawa formerly grew; the birch country being very barren. On the small bush-farms cattle-grazing is the chief pursuit. Out of 14,000 head kept in Marlborough, 7,000 belong to the forest country.

Grazing.

About 1,680,000 acres of the Marlborough Land District are at present devoted to keeping sheep. The leaseholds in the northern parts of the district contain a large extent of scrub- and fern-covered country, now producing little or no food for sheep, but capable of improvement. The total number of sheep depastured is 751,321, distributed as follows amongst the counties into which the land district is divided: Marlborough County, 472,006; Sounds County, 133,011; Kaikoura County, 146,304. On the natural pasture of the open country merino sheep are kept almost exclusively, the land carrying from half to one sheep per acre. In the forest country, on sown grass, the land keeps from two to four crossbred sheep per acre. Along the shores of the Sounds large areas of hill-land have been taken up on lease, and are now being cleared and laid down in grass expressly for keeping sheep, but generally throughout the forest country the holdings are small or of moderate size, hence this is, after the Wairau Plain, the most populous portion of the district. The export of wool during last year amounted to over 9,000 bales.

Industries.

Gold-mining has been carried on for some years, principally at Mahakipawa, Wakamarina, and Wairau Valley. At present not much gold is being obtained, although there are now strong indications of a great improvement in the gold-mining industry.

There is one dredge at work in the Wakamarina River, results not disclosed, and two others are in course of construction. Several companies have taken up dredging claims on the Wakamarina and Pelorus Rivers. Operations on the Canvastown Flat have been tried by prospecting only.

Eight sawmills are at work within the district: one at Kaikoura, and the others in the Pelorus, Kaituna, Onamalutu, and Pukaka Valleys, and in the Pelorus and Queen Charlotte Sounds. The principal one is Messrs. Brownlee and Co.'s, in the Pelorus Valley, their tramway being about thirteen miles long, the output last year being about 2,500,000 ft. Messrs. Brownlee and Co. have fifty men employed, and keep two vessels running between Havelock and Lyttelton.

During the year the flax industry employed eleven mills. The quantity of hemp shipped during the year was 1,800 bales and 450 bales tow.

In connection with one of the mills, a rope-factory has been established, in which binder-twine made of short flax or tow is the main product.

There are two flour-mills at work—one at Spring Creek, near Blenheim, owned by Messrs. Redwood Bros. This is a complete roller-mill, driven by water-power, and can turn out about 14 tons of flour in twenty-four hours. It is electric-lighted, and the sack-working machinery is driven by electric motor. The other mill, which is also worked by water-power, belongs to the executors of Mr. T. Carter, of Blenheim.

There is a dairy factory at Spring Creek which contains all the latest improvements in machinery; 13½ tons of butter were produced in 1899.

There is a first-class cheese-factory at Tuamarina. The output last season was 60 tons, but the factory is capable of turning out 80 tons. There is also a good cheese-factory at Kaikoura.

Climate.

Marlborough possesses one of the finest climates in the world; and at Blenheim it is fine weather nearly all the year round. There is almost a total absence of the boisterous winds that so frequently visit Wellington.

The original distribution of the open and forest lands was entirely due to climatic causes. At Cape Campbell, one of the barest places in the district, the annual rainfall is only 23·25 in.; in the Pelorus Valley, the centre of the forest country, it is over 65 in. This difference between the climates of the north-western and south-eastern portions of the district explains why the artificial pasture-land, when compared with the natural pasture, supports such a large amount of stock. Winter and spring are the wettest seasons, hence the dry climate is not unfavourable for agriculture. Wherever the soil is suitable, crops sown in winter and harvested in early summer can be successfully grown. Everywhere near the coast the range of temperature, considering the latitude, is very small. The thermometer seldom falls below 30 deg., or rises above 78 deg. Along the shores of the Sounds the mildness of the winter, owing to the curious distribution of land and water, allows lemons, oranges, passion-fruit, figs, and other sub-tropical fruits to be grown in favourable situations. On the lower hills and terraces of the forest country the chestnut (*Castanea vulgaris*) grows rapidly, and commences to bear fruit in five or six years. A few trees planted in the Pelorus Valley some twenty years ago are now yielding annually about 2 cwt. of nuts a tree. In all parts of the low country the common English fruit-trees—apple, plum, pear, cherry, &c., yield abundantly, the fruit, owing to the clearness of the atmosphere, being of excellent quality. In the high country, where snow falls occasionally during winter, red, white, and black currants can be produced in such quantities that with little labour they might be made an article of export to the warmer parts of Australia.

Towns.

The chief town, Blenheim, is situate on the Wairau Plain, at the junction of the Opawa and Omaka Rivers—a third river, the Taylor, would join at about the same point were it not that when not in flood it disappears beneath the surface, about three miles south of the town. Blenheim has been termed a miniature Christchurch, doubtless from its extreme flatness. Considering this, its streets are not so straight and wide as they should be. The Government Buildings, which comprise the Post and Telegraph Offices, Lands and Survey Offices, Courts of Justice, &c., form a handsome edifice in the centre of the town, which is well planted with deciduous and evergreen trees. It is about eighteen miles and a half from Picton by rail, and about nine miles from the sea by the Opawa River, which is navigable for small steamers. Blenheim is lit with gas, and supplied with water, principally by artesian wells. The population is about 3,000.

The next town in importance is Picton, the principal port, only fifty-three miles by sea from Wellington. This little town, both in position and appearance, may be said to be the antithesis of Blenheim, being most picturesquely situated at the head of Queen Charlotte Sound, and nestling among hills, some of the higher ones still densely covered with birch and other forest. There is frequent communication with Wellington and Nelson by steamers averaging 500 tons, and vessels of the largest size can lie at the wharf at low-water. The direct exportation of frozen meat from Picton commenced in 1892, when 16,433 carcases were shipped. The Christch[illegible]at Company exported from Picton for the year ended 31st March, 1900, mutton, 6,269 carcases, and lambs, 17,559 carcases. Picton possesses a malting establishment also, producing for export, as the excellent quality of the barley grown on the Wairau Plain insures a ready market. A small quantity of oysters, mostly procured in Queen Charlotte Sound, is annually exported from Picton; with culture the supply might be almost indefinitely increased, many of the sheltered bays in both sounds being well adapted for the purpose. What is now being done along the Marlborough coast is a mere trifle compared with what might be accomplished if capital and knowledge were brought to bear on the fishing industry. Around the whole coast, from the mouth of the Conway to near the French Pass, the sea abounds in fish. Within the Sounds and amongst the islands of Cook Strait, hapuku, snapper, moki, barracouta, raturi, kahawai, and rock-cod are extremely plentiful. Immense shoals of the southern herring (*Clupea sagax*) and of anchovies (*Engraulis encrasicholus*) frequent the inlets at certain seasons of the year, and quantities of fresh fish are exported from thence to various places within the colony. As steamers arrive at and leave Picton almost daily, shipments can be made without delay to all parts. Picton possesses a good gravitation water-supply. Its population is about 900 persons.

Havelock, situate at the head of Pelorus Sound, is, as has been already stated, the present headquarters of the timber trade, Messrs. Brownlee and Co.'s steam sawmill, at the mouth of the Pelorus River, being only a mile or so from the town. Between Picton and Havelock there is a mail service twice a week, *viâ* Cullensville, on the Mahakipawa Gold-fields. The population of Havelock is about 300 persons.

The Town of Kaikoura, the greater part of which is built on a raised shingle-beach, is situate at Kaikoura Peninsula, near the southern boundary of the district. The town, with the adjoining settlement of small farms, forms one of the most picturesque spots in New Zealand, lying as it does under the Seaward Kaikouras, or Looker-on Mountains. At the back of the town the peninsula, which is composed of Cretaceo-tertiary limestone, rises abruptly for about 100 ft., and affords splendid sites for dwelling-houses. Kaikoura is connected with Blenheim by a weekly coach service, the distance being about ninety-five miles. There is also direct steamer communication with Wellington and Lyttelton. The population of the town is about 400.

Roads and Railways.

The only railway is that between Picton and Blenheim, about eighteen miles and a half in length. The train, starting from Picton, runs twice a day. The railway has been completed for a distance of three miles south of Blenheim, and its construction is actively in progress as far as the Township of Seddon, including a substantial railway and traffic bridge over the Awatere River, which will cost £22,500, and will be a very great boon to the district.

The Main North Road to Nelson, distant seventy-eight miles, is a good metalled road nearly the whole way. It runs up the Wairau Valley from Blenheim for about six miles, crosses the Wairau River into the Kaituna Valley, which it follows as far as Havelock—about twenty-eight miles. It then runs up the Pelorus and Rai Valleys, and ascends by easy gradients to the Brown Saddle, where it crosses the boundary into Nelson. An excellent coach-service—probably the best in the colony—has been established for some years, the coach running to and from Nelson on alternate days, covering the distance in eleven hours, and another coach-service twice a week has been established between Blenheim and Havelock.

The Main South Road, running over the Taylor Pass into the Awatere Valley, and through the Starborough, Flaxbourne, Kekerangu, and other properties, connects Blenheim with Kaikoura and the south, and is a good road during dry weather, although it might be much improved in places. Since the acquisition of the Starborough Estate by the Government the bulk of the traffic now goes *viâ* the Redwood Pass, as it is a more direct route to the town of Seddon.

The portion between the Clarence River—over which a fine bridge was built some years ago—and the Hapuku River, runs along the coast under steep and picturesque hills covered with forest. During the last three years a road has been in course of construction to the south of Kaikoura, between the Kahautara and Conway Rivers. This road will be completed within the next few months, and when finished will form part of the main Cheviot–Kaikoura Road, and, besides its great usefulness in opening up the country through which it passes, will also become a favourite route for tourists, as in many places it passes through most picturesque scenery.

A good road has been formed up the Wairau Valley, passing through the Bankhouse, Erina, Lansdowne, Hillersden, and Birch-hill properties, and connecting with Tophouse, just outside the boundary, and distant fifty-six miles from Blenheim. At Tophouse there is an hotel and a telegraph-station, and from thence a good road leads to Belgrove, the present terminus of the Nelson Railway.

A coach runs twice a week between Blenheim and Wairau Valley—twenty-five miles—where there is an hotel, a post- and telegraph-office, and one or two stores.

There is also a good cart-road running up the Awatere River—which it crosses and recrosses several times—as far as Molesworth Station, about seventy miles from Blenheim. Between these points there is a weekly coach- and mail-service.

There are other minor roads and bridle-tracks throughout the district too numerous to specify.

Crown Lands.

The area of Crown lands at present available for settlement is about 200,000 acres, but of this area 135,000 acres are of very poor quality, being chiefly the summits of high, rugged country. The balance of available area lies principally in the Pelorus, Rai, and Wakamarina Valleys, and in the Sounds, and will doubtless be readily taken up when thrown open for selection.

THE NELSON LAND DISTRICT.

T. Humphries, Chief Surveyor.

General Physical Features.

The Nelson Land District comprises the north and north-western portion of the Middle Island, the greater part being high and mountainous, and on the western and inland ranges covered with dense forest to the bush-limit, at from 4,000 ft. to 4,500 ft. Cape Farewell, the northernmost point, is situated at the western entrance of Cook Strait, on the south side of which lie Golden or Massacre Bay, and Tasman Bay, more commonly called Blind Bay. The former derives its name from the massacre of a boat's crew belonging to Tasman, who visited it on the occasion of his discovery of New Zealand in 1642. At the head of the latter, which has a depth of fifty-four miles from its entrance, stands the town of Nelson. From Separation Point, on the western side of Blind Bay, a range of mountains from 3,000 ft. to 4,000 ft. in height extends southward to Mount Murchison. It consists of a granitic formation, with slate, limestone, and sandstone belts. From Pelorus Sound, on the east, commences another range—a portion of which is serpentine, forming a mineral belt immediately south of Nelson City. It reaches an elevation of 6,000 ft., and runs in a south-westerly direction to the St. Arnaud Range, terminating in the Spencer Mountains, a large central mass attaining a height of 8,000 ft. above the sea-level. To the westward of the Spencer Ranges and those on the further side of Blind Bay are the Brunner, Lyell, Marine, and Tasman Mountains, from 5,000 ft. to 6,500 ft. in height. Still further westward along the coast are the Paparoa, Buckland Peaks, and Papahaua Mountains, about 4,500 ft. at their highest point, and the Whakamarama Range, extending from Rocks Point to Cape Farewell. There are also a number of isolated mountain-masses here and there through the district.

The inland Spencer Mountains are the source of the principal rivers of the district south of the Buller River, and are thus described by Sir Julius von Haast: "On the southern slopes of this wild alpine-stack we find the principal sources of the Grey, or Pohaturoha; on its north-east side the sources of the Wairau; on its eastern side those of the Acheron and Clarence; and in the deep recesses of these snow-clad giants those of the Waiau-ua, or Dillon: so we may say that, with the exception of the Takaka and Aorere, which fall into Massacre Bay, the Wangapeka and Motueka, which run into Blind Bay, the Karamea and smaller streams, which reach the sea on the West Coast to the north of the Buller River, all the rivers of any size in the northern part of this island take their rise in this magnificent chain."

Rivers.

The Buller River (Kawatiri) has its source at a point about sixty miles south-west from Nelson, where it flows out of the beautiful alpine lake Rotoiti, lying 1,800 ft. above sea-level at the foot of the lofty St. Arnaud Range. This river breaks through the massive mountain chains of the interior in a transverse or easterly direction, forming, where it receives no tributaries, a succession of magnificent rocky gorges, and, after a course of about one hundred miles, finally discharges its waters into the ocean on the West Coast. The Gowan River, a tributary, has its source in another exquisite lake, Rotoroa, 1,623 ft. above sea-level. Other tributaries of the Buller are: the Matakitaki, Maruia, Owen, Matiri, and Inangahua, all of which take their rise in the snowy ranges.

The Grey River (Mawhera), also discharging its waters on the West Coast, takes its rise in Lake Christabel, near the western flank of the Spencer Range. It has a very large basin, and numerous tributaries, of which the Ahaura is the chief.

The rivers on the eastern side, named above as taking their rise in this district, flow for the most part through mountain ranges and open valleys utilised as pastoral land.

Lakes.

The lakes of the district are alpine in character, surrounded by grand mountain and bush scenery. The principal are: Rotoiti, lying east, and Rotoroa south-east, of Mount Murchison; Matiri, to the west of Owen Range, 980 ft. above the sea; Lakes Tennyson, 3,614 ft., and Guyon, 2,658 ft., on the eastern flank of the Spencer Mountains; Lake Christabel, on their western flank; Lake Hochstetter and Lake Sumner, the latter 1,725 ft. above sea-level, lying under Mount Emerson (6,000 ft.).

Plains.

The plains of this district are limited in extent, the principal being the Amuri, in the valleys of the Hurunui and Waiau-ua, in the centre of which rises a partly isolated mass of hills called the Percival Ranges, the highest peak of which is Mount Percival, 5,335 ft. These plains, being well covered with native tussock-grass, were either purchased or taken up with pre-emptive rights as pastoral land very soon after the commencement of the settlement. The Waimea Plains, near Nelson, with the Lower Motueka, Riwaka, and Takaka Valley lands, formed part of the original settlement of the New Zealand Company, and are occupied mostly by small settlers. Inland are the Tiraumea Plains, 1,100 ft. above sea-level, and the Maruia, 1,300 ft. These are, together, about 30,000 acres in extent. They are surrounded by high mountains heavily timbered, and the land is of only second-rate quality. On the West Coast the level lands are Totara Flat and Ikamatua Plains, in the Grey Valley, Mawhera-iti, and Inangahua Valleys, lying on the eastern flanks of the Paparoa coastal range. There are also open *pakihis* at Addison's Flat, on the south side of the Buller, and low swampy lands on the north side; northward is the heavily timbered country of the special settlement at the mouth of the Karamea.

Forest.

The area of the district is estimated at 5,430,000 acres, of which the open land under 2,000 ft. in altitude is, approximately, 930,000 acres; the area of forest-land under 2,000 ft., about 1,932,000 acres; and the open land above that altitude, about 760,000 acres, inclusive of bare mountain summits. The wooded country is estimated at 3,740,000 acres; of this area probably about 1,150,000 acres is scrub and stunted bush; and of the remainder, not 1,000,000 acres at the outside would be available for clearing. The timber on the western side consists of red- and white-pine, matai (or black-pine), totara, kawhaka (or cedar), rata, and occasional silver-pine, besides black- and red-birch (*Fagus fusca*). These varieties are also found, but in smaller areas, on the eastern side; birch preponderating. A large amount of timber is used in the mining industry for props and planking, and throughout the districts generally for shingles, fencing, firewood, sleepers, &c. There are forty-five sawmills at work, with an output of about 16,000,000 superficial feet per annum.

Agricultural.

Nelson has little land suitable for agriculture, most of it already taken up. On the Waimea Plains is grown excellent barley, a small quantity of which is exported. Oats and chaff are sent in large amounts to the West Coast and elsewhere. Hops also form one of the chief exports. Wheat, maize, rye, and root-crops of most varieties are grown, and fruit is plentiful. The weekly wage of a farm-labourer is 20s. with board; without board he would receive 5s. a day. Ploughmen can get 20s. per week with board; without, 7s. 6d. a day.

Pastoral.

The total area of pastoral lands held under the Crown by 95 tenants on the 31st March, 1900, amounted to 338,215 acres. As the agricultural land is limited, settlers are turning their attention to the timbered mountain-slopes for grazing purposes. These, when the timber is felled and burnt, and the ground sown with suitable grass, will, after three to four years, carry about two sheep to an acre on fair soil, and more on the limestone country. The cost of felling and burning green timber is from 15s. to 20s. per acre; cost of mixed grass-seeds and sowing, about 15s. per acre; and a good paling-fence on ordinary bush-lands with double No. 8 wires at top and bottom, with ½ in. palings and 7 in. posts sunk 2 ft. in the ground, can be erected at about 12s. per chain.

Mining.

The western side of the Nelson District was a *terra incognita* till about the year 1863, when gold was first discovered in large quantities. Miners flocked in at first from the other goldfields in New Zealand, then from Australia, California, and other parts of the world, until in 1865 the whole coast-line was peopled from Broken River in the north to Jackson's Bay in the south. Mining, at first altogether alluvial, developed into quartz-reefing, and hydraulic-sluicing of large areas. The agricultural lands about the Grey and Inangahua were taken up and cultivated; and, as mining became a more settled industry, the miners occupied and tilled the non-auriferous alluvial flats in the many valleys: hence at the present time a number of homesteads are scattered throughout the district.

Reefton and its neighbourhood forms one of the chief quartz-mining districts in New Zealand; and the West Coast, including Westland, has produced about 45 per cent. of the total gold raised in the colony. The oldest alluvial field is at Collingwood. Among other minerals found in the district are: silver, copper, chrome, antimony, manganese, and hæmatite. Extensive deposits of coal are found on the West Coast, within the areas of the Grey and Buller Coalfields Reserves. Coal is also found in Collingwood, in Blind Bay, and in West Wanganui Inlet; and there are numerous smaller areas of coal-bearing strata here and there throughout the district. The output from the mines at work within the district during the year ending 31st December, 1899, was 521,947 tons, of which 479,141 tons were shipped, 336,514 tons from Westport and 142,627 tons from Greymouth Copper-ore is found in a serpentine rock-formation near Nelson, but the companies which have worked the ore have not hitherto been successful—the last one, "The Champion," failing from want of sufficient capital. Deposits of chrome-ore are also found here. Silver-ore has been worked in the Collingwood District; and at Parapara, in Blind Bay, there are widespread deposits of hæmatite iron-ore, combined with limestone and coal, waiting only for capital to develop them. It will be readily gathered from the above brief description that mining is the chief industry of the Nelson District. A great impetus has been given to the mining industry on the West Coast, in a manner similar to that which has taken place on the Auckland goldfields. In the Reefton district a large English syndicate has bought out several properties of quartz-mining companies, which have been paying concerns, although worked with limited capital and old-fashioned machinery, with the view of introducing the newest methods of working and the most improved gold-saving appliances. A number of wealthy syndicates are now in the field, and a great revival has taken place in prospecting for new reefs, and in developing numbers of others known to be auriferous, the working of which has hitherto languished for the want of capital to develop them.

Sawmilling, &c.

The timber industry on the West Coast has now become a very important trade. During the past year about 12,000,000 ft. of various kinds of wood, principally red- and black-pine, have been cut in this district alone for export, and silver-pine has been largely in demand for railway-sleepers for home consumption. There are also ten sawmills working in the Golden Bay district, the export amounting to about 4,000,000 ft. for the past year. A small industry in flax is also carried on.

Towns.

The chief town is Nelson, situated at the head of Blind Bay, in 41° 16′ S., and surrounded on all sides, except the north, by mountains reaching an elevation of 3,500 ft. With a mean temperature of 54·8° Fahr. it possesses a climate almost unequalled for its beneficial effects on invalids suffering from pulmonary diseases. There are many picturesque spots in the suburbs, and the city itself, with its cleanly-looking buildings and well-kept gardens, is one of the most charming spots in New Zealand. There is an old-established Boys' College, and a High School for Girls, besides Government and other schools. The Anglican Pro-Cathedral, built on the summit of a central hill, memorable as being the site of fortifications erected in the early days of the settlement for defence against an expected attack of the Natives, is a striking feature. The Roman Catholic Church, Convent, and school-buildings cover a large extent of ground. There is also at Stoke, a small village three miles from Nelson, a central Catholic Orphanage, surrounded by grounds of considerable area. There is a good supply of excellent water from a reservoir in the hills at the back of the town, and the streets are well lighted with gas. The several Government departments are housed in one roomy building, containing a large hall used for Supreme Court sittings and other public purposes. Nelson has a small natural harbour, formed by a boulder-bank running for eight miles parallel to the shore, deep enough at high tide to admit vessels of 1,000 tons burden. It is a port of call for the Union Steamship Company's coastal steamers, and has a small local fleet plying between the West Coast, Blind Bay, Picton, and Wellington. The town is reached from the eastward by a good main road from Marlborough. A railway-line has been constructed up country to the southward for thirty-three miles, passing through the farming villages of Stoke, Richmond (borough), Brightwater, Wakefield, Foxhill, and Belgrove. Leaving for the West Coast by a good main road, the traveller starts from the Motupiko Station on one of Cobb and Co.'s coaches, crosses Spooner's Range, the Clarke and Hope River saddles, and enters the Buller Valley at the junction of the Hope, about sixty-seven miles from town. He then enjoys a succession of views of mountain-gorge scenery, and, after traversing a gorge of seventeen miles in length, arrives at the Lyell, 107 miles from his starting-point. This is an alpine township, in a small quartz-mining neighbourhood. Here is a fine cast-iron girder bridge, spanning a rocky gorge of the Buller, and springing boldly from a bluff on the northern side. At 116 miles the junction of the Inangahua with the Buller is reached, the main road continuing to Reefton, with a branch road twenty-eight miles to Westport, which for twelve miles passes through some of the grandest river-gorge scenery in New Zealand.

Westport, the town next in importance to Nelson, is situated at the mouth of the Buller River. The harbour is sheltered from southerly gales by Cape Foulwind and its outlying rocks, and is accessible in nearly all weathers. A large sum has been spent on a system of harbour-works, designed by the late Sir John Coode. Westport is the place of shipment for the coal-mines lying northward as far as the Mokihinui River. The character of this coal for steam purposes stands almost unrivalled. The long line of coal-staiths on the northern bank of the river, with a fleet of steam-colliers loading alongside, does not fail at once to impress a visitor with a sense of the importance of the trade. Though much has already been done, yet the industry, from the extent of the coal-bearing strata, is capable of much larger expansion when the necessary capital can be found. The Westport–Ngakawau Railway to Mokihinui, connects with the mines and conveys the coal to the port. At the foot of the Mount Rochfort plateau, nine miles from Westport, is Waimangaroa, and on the plateau itself is Denniston—both coal-mining villages. The latter, built at an elevation of 1,960 ft., is said to be the highest township in New Zealand. On a clear day it is well worth a visit, for the sake of enjoying the magnificent panoramic view of the southern Alps, which reach their highest point in Mount Cook, 12,349 ft. high, about 100 miles south. South of Westport are the alluvial gold-mining centres of Addison's Flat, Croninville, Nine-mile Beach, and Charleston.

From the Inangahua Junction, the main road continues southward through the Inangahua Valley, passing through cultivated lands, which are being gradually won from the heavy bush, and at a distance of 136 miles from Nelson reaches the township of Reefton. Here, as at Westport, are good hotels, and, as in every one of the larger coast towns, a hospital receiving a Government grant-in-aid. This town was the first in New Zealand to be lighted by electricity. Through the Midland Railway Company's extension of the Grey–Brunner Government line, Reefton is now connected by rail with Greymouth, from whence it is for the most part supplied. About two miles inland from Reefton is Black's Point mining township, with several batteries at work in and about the place, a visit to which is generally paid by tourists wishing to see something of the gold-mining industry. Other small mining townships are: Boatman's, Capleston, Antonio's, Noble's, Orwell Creek, Hatters', Nelson Creek, and Twelve-mile.

Leaving Reefton by rail, and passing into the Grey Valley through a short tunnel, and by a bridge over the Grey River, Totara Flat is reached, nineteen miles distant. Here there is a considerable area under cultivation. Seven miles farther on is the decayed mining township of Ahaura. Small townships are springing up along the railway-line, and several large sawmills are working.

At the Grey River Gorge, eight miles from Greymouth, we enter the Borough of Brunner. This place is the oldest centre of coal-mining in the district. Owing to the effect of the coal-smoke from the coke-ovens on the surrounding cliffs and bush, and the appearance of the numerous miners' cottages nestling on the mountain-slopes, it has the look of a veritable "Black Country," such as may be seen in some coal-districts in England.

Several large sawmills are at work between this place and Greymouth, which we reach at a distance of 180 miles from Nelson, the centre of the Grey River from its junction with the Arnold being the southern boundary of the district at this part. The Midland Railway line, to connect with Canterbury by way of Arthur's Pass in the Otira Gorge, has been constructed on the Westland side of the Arnold River to Lake Brunner, the eastern shores of which it skirts for some distance, and from thence to the Teremakau River.

The town of Greymouth is situated on the south bank of the Grey River, in the Westland District, and is the shipping-port for the products of the coal-basin included within the area of the Grey Coalfields Reserve, the larger portion of which lies on the north bank of the river in the Nelson District.

The small town of Cobden is situated opposite the town of Greymouth, and is connected with it by a substantial bridge.

Roads, Tracks, &c.

Situate on the coast, fifty miles north of Westport, is the Karamea Special Settlement, principally settled from the Nelson and Motueka Valley districts. This part of the district contains some excellent but heavily-timbered land, and is reached from Westport by a good road, connecting with the Westport–Ngakawau Railway at the Mokihinui River. A bridle-track, also, connecting with Collingwood and Golden Bay, is nearly completed by the Government. This track passes along the coast northwards, thence up the Heaphy Valley to the Golden Downs, and down the Aorere Valley to Golden Bay. Here again is another coal-basin, which, though of inferior value to the older deposits on the western side, is likely to become of importance having at the present time one mine in full work. Another coal-basin exists at West Wanganui and Pakawau.

In the Aorere Valley, of which Collingwood is the port, alluvial mining is still found to be payable, and the country contains some valuable timber in the upper part not yet utilised. Nineteen miles south, in Blind Bay, lies the small port of Waitapu, from which a considerable amount of sawn timber is exported, drawn from the Takaka Valley, and brought down by a steam tramway from the upper mills. From the head of this valley the main road is carried over a pass in the Pikikirunga Range, 3,476 ft. high, through the villages of East and West Takaka, Riwaka, Motueka, and Moutere to the town of Richmond, eight miles from Nelson. Inland are also the villages of Ngatimoti, Dovedale, Tadmor, and Sherry, each the centre of a number of small farms, and all connected by fairly-good dray-roads.

An inland road, partly bridle-track and partly dray-road, has been made from Nelson to Canterbury, by way of Tophouse, Wairau Gorge, Tarndale, Clarence Valley, Jollie's Pass, and the Waiau Plains. On the Hanmer, a tributary of the Waiau-ua, is a Government Sanatorium, at an elevation of 1,000 ft. above sea-level, and among hills 6,000 ft. high. Here there are hot mineral springs, much visited by persons suffering from rheumatism and skin-diseases. It is reached by coach and rail from Christchurch in ten hours. The main-trunk railway-line is constructed to Culverden, twelve miles north of the Hurunui, the southern boundary of the district. From Culverden a good coach-road passes through Rotherham and Waiau-ua to the East Coast at Kaikoura, connecting with Blenheim and Nelson.

Crown Lands.

About 3,000,000 acres of Crown lands still remain unoccupied in the northern part of the Nelson District; they consist principally of high bush-country, with occasional patches of good valley-lands, the greater part being classed as second-class land. Of these, the area open for selection to date comprises 29,068 acres of surveyed lands, and 259,550 acres unsurveyed lands, of which the location, nature of soil, &c., have been briefly described in the foregoing pages.

THE WESTLAND LAND DISTRICT.

W. G. Murray, Chief Surveyor.

The Westland District occupies the central portion of the western watershed of the Middle Island, joining Canterbury on the east; its north and south boundaries with Nelson and Otago being the Grey, Arnold, and Awarua Rivers. The mean length is 200 miles, and its average width 24 miles. The area is 4,759 square miles, composed, for the most part, of the great central snow-clad mountain chain and its out-running ranges, intersected by narrow bush-clad valleys, and subsiding westward into undulating plateaux, river-straths, and shelving coasts.

Physical Features.—Mountains.

The great dividing range which constitutes the eastern boundary from Harper's Pass to Mount Aspiring presents a magnificent façade of snow- and ice-clad summits, representing every aspect of mountain grandeur, such as spires and battlements of rock protruding from ice and snow; precipices of enormous height, with cascades; drifted expanses of snow-fields, feeding glaciers; cañons, and ravined foot-hills covered to the top with forest.

Rivers.

A few of these lead from the foot-hills, and are of small volume; the others are snow-born streams descending from the central range, at first in narrow gorges amongst the mountains, but spreading widely on reaching the sea-board country. They are shallow shingly streams in winter, but swift deep rivers in summer. In the northern district all the larger rivers are bridged; and southward, ferries are placed on all the main streams, which, from the melting of the snow, are practically unfordable from September to January.

Forests.

Generally speaking, the whole of the district is covered with dense forest, from the sea-beach to the grass-grown tops of the high ranges, even the gaunt, broken mountain-faces being wrapped with exuberant foliage. The varieties of trees differ considerably according to soil and altitude. Kamahi and rata are the chief timbers, very useful for firewood, and, spread over the whole country, constitute an almost inexhaustible supply. Rimu is the chief milling timber, and this also is widely distributed from the sea-board to the interior uplands. Valuable stretches of white-pine belt the low-lying depression of the coastal lands, and the same may be remarked concerning the imperishable silver-pine. Clumps of black-pine of good quality are met with, also rarer patches of marketable totara; while serviceable cedars are scattered along the flanks of the inland ranges and all over the lower hills and plateaux. The approximate area of forest equals 2,394,951 acres, of which about [illegible]0,500 acres carry timber fit for the sawmill, and some 903,785 acres dwarfed alpine varieties.

Lakes.

A considerable and varied number are dotted over the district, no two being alike, but varying in character: comprising mountain tarns; coastal tidal lagoons; shallow reedy sheets; deep mountain-girt waters—all more or less forest-locked, and presenting every form of lacustrine beauty. In conjunction with their effluents they form valuable water-ways for light transport to adjacent districts.

Soils.

The high pastoral uplands have a coating of rich moulds, and this continues fairly good down to the heavy timber lands. The alpine forest is readily cleared, [illegible] and imported grasses grow luxuriantly, cocksfoot being the best, as it withstands fire and frosts. The lower flanks of the mountains hold a thinner soil, which at present hardly repays the heavy labour of felling; while the lower heights are somewhat abrupt and unfitted for cultivation. A margin, varying in width, of [illegible] slopes and fans fringes the bases of the hills, and, having a natural drainage, [illegible] an area of excellent agricultural land.

The upland soils of the coastal undulations and terraces are light loams of [illegible] friability, which rest upon transported gravels, the drifted accumulations [illegible] hills. On these plateaux are numerous "pakihis," or natural clearings, [illegible] extensive tracts of swampy lands, with a peaty soil resting on [illegible] impervious clay, and non-porous gravels, or, in a few cases, on im-[illegible] moraines: these formations all overlying loose drifts. The reclama-[illegible] areas is only a matter of time, as the bulk of them are quite drainable. [illegible] of good alluvium border the rivers, streams, and sea-coast, and form [illegible] location for settlers.

Climate.

[illegible] equable and temperate, remarkably free from storms and fogs; [illegible] bad weather the clouds roll inland, and there is a prevailing [illegible]. The rain-bearing winds are mostly from the north-west and north-[illegible] winter gales usually coat the great ranges with snow, which, [illegible] below 2,000 ft.

Pastoral Lands.

[illegible] pastoral lands amounts to 2,002,577 acres, 103,801 of which [illegible] grass districts, the balance, 1,898,776 acres, comprising [illegible], much of which is quite inaccessible to stock. All [illegible] the slopes of the lower hills and in the bottoms of the [illegible] are bred and fattened on the dense undergrowth of the [illegible] of the high lands is being gradually used by sheep-[illegible] ral pastures will support large flocks.

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Agricultural Lands.

The agricultural lands comprise some 307,344 acres of forest and 16,440 acres of open surface, such as swamps, grass-grown river-beds and fringes, &c. The bulk of these lands, when cleared of bush, grow abundance of root-crops, especially turnips, which are much used for fattening purposes. The even and moist temperature encourages the almost uninterrupted growth of grass and clover, which are very luxuriant, and favour stock-raising. Oats are also grown abundantly for local consumption, and for the most part are cut into chaff. Year by year the imports of potatoes, fruits, butter, and fat stock are decreasing, owing to increased local production.

Means of Communication.

The district is fairly well provided with means of communication. The railway now extends from Hokitika, *viâ* Greymouth, to Reefton, branching at Stillwater to Jackson, in the Upper Teremakau; and a further extension to Otira is now constructed. Coaches twice a week connect with Canterbury, *viâ* Arthur's Pass, and ply daily between Ross, Hokitika, Kumara, Greymouth, and the neighbouring towns: while once a week a mail is conveyed on horseback southward to Gillespie's Beach, and once a fortnight to Jackson's Bay. A subsidised steamer runs between Hokitika and the numerous southern ports as far as Jackson's Bay, plying every two months, thus enabling settlers to obtain supplies and to ship their cattle and produce to market. The Government steamer also calls at Big, Jackson's, and Bruce Bays on her quarterly trips from Dunedin. Steamers also trade regularly between Hokitika and Greymouth, and other parts of the colony. The Main South Road, which for many miles skirts the foot of the main range, has been so greatly improved of late years that the traveller can now ride comfortably and safely *viâ* Haast Pass right through into Otago. Numerous bridle-tracks branch from the trunk line to various points, while the large open river-beds likewise give access to the country on either hand. From Jackson's Bay horse-tracks have been made, *viâ* Cascade River and Barn Bay, to open up the southernmost country. Sundry *cols*, varying in height from 1,800 ft. to over 7,000 ft., leading down the central range, have been explored, mapped, and during the summer months are crossed from time to time by experienced mountaineers. Of these depressions, the only sub-alpine saddle is Haast Pass, all the others being liable to blocks by winter snows. A coach-road over Arthur's Pass and a horse-track through Haast Pass have been made. Another bridle-road is also in course of construction across Whitcombe's Pass, but between these points no trans-insular road exists. Tracks have also been constructed giving easy access to the Franz Josef and Fox glaciers, and in the future, as population increases, doubtless tourist and stock tracks will be constructed along many of the intervening routes. From Okarito northward the district is in direct telegraphic communication with the rest of the colony.

Harbours and Ports.

The harbours and ports of Westland are the following:—

Greymouth, twenty-four miles north-east of Hokitika: Extensive harbour-works have been carried out. A breakwater or sea-wall extends some 3,392 ft. seaward from the mouth of the river on the south side, and on the north side 1,125 ft., with internal half-tide training walls, the result being an average depth of water on the bar of 20 ft. 10 in. at high water and of from 8 ft. to 16 ft. at low water. Vessels of 1,000 tons can now come alongside the wharf. There is berthage accommodation of 1,824 ft., with a minimum depth of 12 ft. to 16 ft. at low water. The principal exports are gold, coal, coke, and timber. The number of vessels that entered the port during the year 1899 was: 535 steamers, tonnage 164,629; 30 sailing-vessels, tonnage 3,704: being a total tonnage of 168,333 for the year. The train runs down the wharf, and the coal-trucks, specially made for the purpose, are lifted and emptied into the vessel's hold by means of powerful cranes, of which there are six, with capacities of from 1½ tons to 12 tons, so that every encouragement is given to quick despatch. 142,627 tons of coal and 10,327,465 superficial feet of sawn timber were exported during the year.

Hokitika: Two training-walls have been constructed, the one on the north side being about 2,000 ft. long, while that on the south is 670 ft. The bar is one of shifting sand, and the depth at high water varies from 9 ft. to 15 ft., while inside the depth is from 6 ft. to 22 ft. for three-quarters of a mile up from the entrance. For ten months out of the twelve the port is usually safe for vessels drawing 8 ft. to 10 ft. of water. The berthage space amounts to 1,000 ft., with from 18 ft. to 22 ft. of water. The principal exports are gold and timber.

Okarito, fifty-five miles south-west of Hokitika: A bar harbour, sometimes completely blocked by a high sand-bank thrown up by heavy seas. When open, the entrance is good, with a maximum depth of 10 ft. There is a small jetty about half a mile from the entrance.

Bruce Bay, ninety-five miles south-west of Hokitika: An open roadstead, well sheltered from the south and south-westerly winds by Heretaniwha Point, which juts out fully a mile to the northward. Good anchorage in 18 ft. of water opposite the Green Rock, which stands up out of the water. Good boat-landing with above winds on a smooth sandy beach.

Paringa River, 104 miles south-west of Hokitika: Open roadstead. Vessels coming in and out should give Hauata Reef (off the north head) a wide berth. There is also a sunken reef, awash at low water, in the middle of the bay, and a dangerous sunken rock just off the south head, two or three chains away, facing a small sandy bay, and right abreast of the trig. station. Vessels lie inside and a little to the northward of this rock, about a quarter of a mile from shore, and are quite safe with southerly winds.

Haast River, 118 miles south-west of Hokitika: A constantly-shifting bar at entrance, which is nearly opposite and a little to the southward of the Alhambra Rock. This rock stands well out of the water, and vessels entering can go on either side with safety. Average depth of water on bar from 6 ft. to 8 ft.

Okuru and Turnbull Rivers, 138 miles south-west of Hokitika: These rivers join just inside the entrance. Good, straight channel; average depth, 8 ft. to 10 ft. The port is well sheltered by Open Bay Islands, which lie about three miles away, just opposite the entrance, bearing a trifle west of north. A dangerous reef lies about two miles and a half from the south-west point of the smaller island, and immediately to the north-west of a line drawn from the last-named point to the extreme end of Jackson's Head.

Jackson's Bay, 153 miles south-west of Hokitika: Good shelter and anchorage, open only to north-east, with 12 ft. of water within a few chains of shore. Jackson's Head runs out about one mile and a half in a north-easterly direction from the southern end of the bay. This is the only ocean harbour on the coast of Westland, and could be converted into a first-class port at comparatively small cost. No doubt Jackson's Bay will eventually form a great coal port, as indications of coal are found from the bay to Tauperikaka, a distance of thirty miles. Moreover, the recent discovery of a practicable pass through the main range, *viâ* the Waiatoto and Axius Rivers, will make it in the near future the natural outlet for the Lake Wanaka country.

Big, or Awarua Bay, 200 miles south-west of Hokitika: At the extreme south-west corner of Westland. An open roadstead, sheltered from east and south-west winds; 24 ft. of water on south side anchorage and 30 ft. on north side, just opposite Crayfish Rock, in a spot sheltered from northerly winds.

Steamers have also, in past years, entered the Teremakau, Waitaha, Wataroa, Wanganui, Waiatoto, and Arawata Rivers, all of which have bar-entrances. The Cascade River is likewise navigable, though no steamer has as yet been in; and goods and passengers are also landed at the roadsteads of Saltwater, Gillespie's Beach, and Abbey Rocks.

Towns.

Brunnerton: A borough of about 1,200 inhabitants; is a coal-mining centre. Coke and fire-clay bricks are also manufactured. Railway communication with Greymouth Port, Reefton, and Upper Teremakau.

Greymouth Borough: Population, 3,423; the shipping port for Grey Valley. Railway communication with Reefton, Upper Teremakau, and Hokitika. Railway workshops, foundry, and quarries. The principal business portion of the town is built on Native land, rents being paid to the Public Trustee, who distributes them to Natives entitled thereto.

Kumara: Borough, of 1,150 inhabitants. This is a brisk mining town, and is probably the largest hydraulic-sluicing mining centre in New Zealand. It has two suburbs—Dillmanstown and Larrikin's—with populations of 467 and 162 respectively.

Hokitika: Borough, of 2,463 inhabitants. This is a pretty town, the political capital of Westland, the port for shipping and centre of supply for a number of little townships, and for the whole district south of Teremakau.

Ross: Borough, population 750. A clean and neat little town, the centre of a considerable mining district, with a few good sluicing claims on a large scale.

In addition to the above, there are several small mining centres, such as Stafford, Kanieri, Woodstock, Rimu, Blue Spur, Okarito, and Gillespie's.

Mining and Minerals.

The District of Westland contains the greatest area of alluvial auriferous ground on the West Coast.

All the Westland rivers carry more or less gold, but the two great golden rivers are the Arahura and Waiho, the bars and ripples in which appear to be replenished with fresh deposits of gold after each flood. Standing on the summit of Mount Turiwhate, the ancient beds of the Arahura can be easily traced northward to the Kumara and southward to the Rimu diggings. Similarly the Waiho has, in olden times, flowed both northward down the course of the Okarito River and southward to the Omoeroa River, the lateral terraces in both directions being well defined and gold-bearing.

There are three main gold-bearing deposits in Westland: the first, which may be called riverine leads, run generally westward. These are ancient river-beds, often lying at considerable elevations, of which the bulk has been washed away, leaving detached portions, as at Kumara and Rimu; the second are beach leads, both those along the present coast-line, and others running parallel thereto at distances varying from one-quarter to four miles inland, and at levels from a few feet below to a couple of hundred feet above sea-level; the third are extensive masses of gravel, &c., occurring in large isolated patches, as at Big Dam Hill, Humphrey's Gully, and Bald Hill, north of the Haast. These drifts have all one notable peculiarity, viz., that they invariably coat the seaward faces of the hills, and neither gold nor drift is to be found on the inland slopes. Gold-bearing fans from Mount Greenland have been found at different levels on Ross Flat, having probably been deposited in deep water by sucessive land-slides.

Hydraulic sluicing on a large scale is successfully carried on in various portions of the northern district, and is rapidly being extended to many other localities. Kanieri Lake is being re-utilised, and an abundant quantity of water is now available for the sluicers in the Kanieri Valley. The extension, now proposed, of that race to Back Creek would develop a very large field. The tapping of the Arahura River will, when completed, enable the miners at Blue Spur to obtain an unfailing supply of water, and command a large area of auriferous country, at present unworkable from want of water at a sufficient altitude. Numerous and costly experiments have been made with dredges of different types in the endeavour to work economically the gold-bearing sands which lie along the sea-beaches for a distance of over 140 miles; but none have proved a success as yet. A considerable number of miners (black-sanders) work on some of these beaches, and seem to make a fair living, many of them having been so employed in one neighbourhood for over twenty years.

Gold-bearing quartz has been found throughout the district, the most promising finds being at Taipo Range, Browning's Pass, and Cedar Creek. Silver ores, associated with gold, have also been found, notably at Rangitoto. Copper lodes have also been discovered throughout the country, the finest outcrop being on the western slopes of the Matakitaki Range, with good seams and beds of coal and limestone adjacent.

makariri, Rakaia, and Hopkins Rivers, at Lakes Ohau and Sumner, and near Springfield and Methven, the timber in these localities being mostly native beech; and near Oxford, where the beech is interspersed with rimu, totara, matai, &c.

The lands of Canterbury may be classed approximately as follows: First class, 2,046,071 acres; second class, 5,207,173 acres; third class (barren lands and lands of small value), 2,350,801 acres: total, 9,604,045 acres.

The disposition of lands was in 1900 as follows:—	No. of Holders.	Area in Acres.
1. Crown lands disposed of for cash (including land granted under Midland Railway Act, 398,475 acres, but deducting lands repurchased for settlement—119,630 acres)...	...	3,866,456
2. Lands held on deferred payments	27	11,940
3. Lands held on perpetual lease	120	13,008
4. Lands held as leaseholds in perpetuity	1,000	191,150
5. Lands held in occupation with right of purchase ...	19	1,413
6. Lands held as village-homestead special settlements ...	367	12,049
7. Lands held as small grazing-runs	68	137,583
8. Lands held as grazing-farms (on Cheviot Estate) ...	39	45,691
9. Pastoral licenses	121	3,429,919
10. Special-settlement associations	36	4,420
11. Reserves and Crown lands held under temporary occupation licenses (area, 91,805 acres, included in 12 and 16)	503	...
12. Area of land reserved and granted under various Acts (exclusive of Midland Railway land, included in 1) ...	...	777,556
13. Land purchased and disposed of under Land for Settlements Acts (included in 4, 7, 10, and 11; 696 holders, 116,468 acres)	...	...
14. Crown lands open for selection	...	9,020
15. Crown lands being prepared for selection	...	...
16. Barren lands, and lands for future disposal	...	1.103,840
Total	2,300	9,604,045

In explanation, it may be noted that No. 1 comprises the freehold lands conveyed, and that tenants of Nos. 2, 3, and 5 have the right of acquiring the freehold, which is not the case with tenants of Nos. 4, 6, 7, 8, 9, 10, 12, and 13. Crown lands proper are: 14, open for selection; 15, being prepared for selection.

Soils.

The Southern Alps and mountains adjoining are, owing to their great altitude, subject to disintegration, and form for the most part rocky barren wastes.

The lower ranges and hills, the high tablelands, and the light stony portions of the plain form the pastoral areas.

In the northern and southern districts and in the great central plain are the agricultural areas. This latter class of land comprises rich alluvial tracts about Cheviot, Rangiora, Kaiapoi, Lincoln, Ellesmere, Longbeach, Temuka, and Waimate, and the splendid plain- and down-lands which extend from Cheviot to the Waitaki.

Banks Peninsula, where the soil is of a rich volcanic nature, though exceedingly hilly, has alluvial areas in the valleys and about the bays.

Pasturage and Crops.

Below a certain level, the mountainous and hilly regions, and the high upland country in the western and northern part, are covered by native grasses, with an admixture of English forage-plants where the character of the soil and other circumstances are favourable.

The pasturage, which is very suitable for sheep-farming, is taken full advantage of by the pastoral tenants of the Crown, and is used to some extent by freeholders. The light stony portions of the plain also contain native grass lands, well adapted to merino sheep.

The lower hills, downs, and better kinds of plain-country have been widely vated, and have proved well fitted for the production both of cereals and of [illegible]

The chief crops grown in Canterbury Provincial District are wheat, oats, barley, ips, rape, clover- and grass- seed; while amongst other crops produced are eas, beans, mangolds, beet, carrots, and potatoes.

Of the cereals, wheat is the most largely grown, and was for many years a item of export. In the season 1899–1900 the area under crop for threshing was 648 acres, yielding an average of 29 bushels per acre, or 5,304,506 bushels in qual to a little over two-thirds of the whole yield for the colony.

Oats also are very successfully grown, the figures for the same period being 429 acres, which yielded 4,993,740 bushels; or an average of 36 bushels per or over one-third of the total yield for the colony.

Barley of superior quality is also produced, the figures being 18,060 acres, 187 bushels: average per acre, 33 bushels, or nearly two-fifths of total yield.

Grass-seeds are abundantly grown, cocksfoot mainly on the splendid Banks nsula country, and ryegrass throughout the land district.

Potatoes, which yield crops of excellent quality, were grown in 1899–1900 on 06 acres; turnips and rape were grown on 202,776 acres, and the combined of other crops grown, including rye, peas, beans, mangolds, beet, carrots, and ons, was 11,444 acres. The area of wheat, oats, and barley for fodder was 04 acres. The area ploughed and laid down in English grasses was 1,419,466 Surface-sown lands comprised 350,405 acres. The total area under crop was 15 acres, and the area broken up but not in crop, 14,249 acres. Plantations, sive of private gardens, occupied an area of 22,874 acres. The aggregate area rivate and market gardens, orchards, and vineyards over quarter of an acre in al was 7,471 acres.

Stock.

The pastoral and agricultural lands provide grazing and fodder for a large ber of sheep, cattle, horses, and other stock. Of late years the value of the ns has been much enhanced and the carrying-capacity thereof greatly increased the water-race system, which supplies water throughout the length and breadth the dry areas, and enables the country to be occupied in smaller holdings than ld otherwise be possible.

The following table shows the extent, cost, and other particulars regarding the r-race system in the several counties in 1900:—

ounty.	Area watered.	Miles of Races.	Total Cost.	Cost per Acre watered.		Amount of Water distributed every Twenty-four Hours.	Annual Charge for Use of Water.
	Acres.		£	s.	d.	Gal.	
wyn ...	326,388	1,099	70,616	4	4	80,940,960	8s. 4d. to £1 5s. per 100 acres.
lburton	586,000	1,280	33,600	1	1¾	86,000,000	About £3 per mile of race.
aldine	71,212	260	9,010	2	6½	29,520,000	About 7d. per acre, including a rate for payment of principal and interest on loans, and a rate for maintenance.
mate	35,700	157	8,125	4	7	8,500,000	Races are maintained by an annual charge on the value of lands watered.

sheep in the Provincial District of Canterbury, in April, 1899, numb 3. In November, 1899, there were 47,104 horses, 89,242 cattle igs.

THE CANTERBURY LAND DISTRICT.

SIDNEY WEETMAN, Chief Surveyor.

Boundaries—Physical Features.

The Land District of Canterbury comprises the central portion of the Middle Island, and lies between the Conway River, Barefell Pass, and Mt. Franklin on the northward; the Spenser Mountains, Travers Peak, Mt. Barron, the Amuri, Hope, and Hurunui Passes, the summit of the Southern Alps, and the western watershed of the River Hopkins and Lake Ohau on the westward; the Rivers Ohau and Waitaki on the southward; and the South Pacific Ocean on the eastward. It lies between south latitudes 42° 5′ and 44° 55′, and east longitudes 169° 45′ and 173° 30′. The length of the district north-east and south-west is about 220 miles; the breadth W.N.W. and E.S.E., from the summit of the Alps to the sea, averages seventy miles. The sea-board has a length of about 300 miles, consisting generally of low-lying beaches, broken by the projection eastward of Banks Peninsula, which contains the only large natural harbours. That portion of the district which fronts the ocean between the Ashley and Opihi Rivers is flat land, about 2,500,000 acres in extent; north and south of those limits the plain is interspersed with undulating and hilly country.

This great plain stretches westwards, rising and merging into downs and hills, which again extend westward and merge into the Southern Alps and the offshoots therefrom. Banks Peninsula, which has an area of about 250,000 acres, is wholly composed of ridges and hills, deeply intersected by basins and gullies, the result of volcanic action.

The Southern Alps, which form the backbone of the island, are a continuous chain of mountains, with a succession of magnificent peaks, attaining their culminating point in Mount Cook, or Aorangi, 12,349 ft. above sea-level; there are, besides, numerous peaks ranging in altitude between 7,000 ft. and 10,000 ft. Offshoots, extending to great distances eastward and south-eastward from the main range, attain elevations of 6,000 ft. to 9,000 ft. On these mountain-ranges are numerous and extensive glaciers, from which emanates the river-system of the district, comprising the Waiau-ua, about 100 miles in length; Hurunui, 85 miles; Waimakariri, 90 miles; Rakaia, 85 miles; Ashburton, 64 miles; Rangitata, 74 miles; the Waitaki and its main feeders, 140 miles. These rivers rush down from the mountain-gorges, through the intervening ranges and hills, and traverse the plains to the sea. The channels on the plains are shallow, and extend in some instances over a mile in width.

These rivers serve as outlets for a portion of the Lake system of the Middle Island, Lake Sumner being connected with the Hurunui, Lakes Coleridge and Heron with the Rakaia, and the Mackenzie Country lakes—Tekapo, Pukaki, and Ohau—with the Waitaki. Another important lake is that known as Lake Ellesmere, west of Banks Peninsula; it is separated from the ocean by a narrow shingle-spit only 5 chains across at one point, through which, at certain seasons, the flood waters force a channel to the sea.

Climate.

The climate of Canterbury is well suited to Europeans. It resembles that of Great Britain, but on the plains is far more equable, the mean daily range of temperature being 17·10° Fahr. Observations taken at Lincoln (fourteen miles from Christchurch) for a period of ten years, ending December, 1892, give the following results: Barometer, reduced to 32° Fahr. and sea-level, 30·06 in.; mean maximum daily temperature, 61·47°; mean minimum daily temperature, 43·27°; mean average temperature, 52·37°. The extremes of temperature were 92° and 22° Fahr. The rainfall for the same period averaged 26·809 in. per annum, the extremes being 35·287 in. in 1886 and 14·836 in. in 1890. The average annual number of days on which rain fell was 123, the extremes being 149 in 1887 and 98 in 1891. Snowfalls are very light on the plains, but in the high uplands the climate is much colder and more severe. The changes of weather and temperature are sudden, calms and gales, rain and sunshine, heat and cold alternating. The prevailing winds are north-east, south-west, and north-west—the last a hot wind. The climate, as a whole, is splendidly healthy, bracing, and most enjoyable.

Foundation and Settlement.

The district was occupied, in the first instance, by settlers sent out by the Canterbury Association, which was formed in 1848, and incorporated by Royal Charter in 1849, under the auspices of prominent men in England, including the Archbishop of Canterbury and Lord Lyttelton. The step was not taken until after due inquiry as to the most suitable part in which to establish a settlement. Captain (afterwards Sir George) Grey, at that time Governor, recommended the Wairarapa, but it was finally decided to take over from the New Zealand Company a tract of the Canterbury Plains, in the neighbourhood of Port Cooper. Captain Thomas, the agent of the association, who had advised the selection, superintended the surveys and the preparations for receiving intending settlers. The original intention of the founders was that the settlement should be independent and complete in itself, and should embrace only such persons as were members of the Church of England and were approved of by the association. This was frustrated by the influx of numbers of persons of all classes and beliefs. The first body of emigrants arrived at Port Cooper on the 16th December, 1850, and the settlement remained under the control of the association, as directed by a committee of management in England, and under the active personal supervision of Mr. John Robert Godley, until 1853, when the whole of Canterbury became a province of New Zealand by the provisions of "The Constitution Act, 1852."

Thenceforward the control of the settlement was vested in the Superintendent and the Provincial Council. The first Superintendent was Mr. James Edward FitzGerald, who held office till 1857; he was followed in succession by Mr. William Sefton Moorhouse, 1857–1863; Mr. Samuel Bealey, 1863–1866; Mr. Moorhouse again till 1868; and Mr. William Rolleston till the abolition of the provinces in 1876, when the district came directly under the control of the General Government.

Internal Communication.

In no part of New Zealand are the means of communication better than in Canterbury. The natural facilities of the country have been abundantly supplemented by railways and roads. Lyttelton, the chief port, is connected by rail with Christchurch, the heart and centre of the whole district. From Christchurch the main line extends northwards to Culverden, a distance of 69 miles; southward the main trunk line runs to Waitaki, 138¾ miles. These lines tap and serve the whole coastal district, and the lands adjoining on the western side. As feeders to these trunk lines, eight branch lines have been constructed westward, and two lines south-eastward; the former, in most instances, extending to the foot of the hills.

Combined with the railway system is a complete network of main, district, and subsidiary roads, extending into all parts of Canterbury. The total length of railways is 455 miles, and the roads probably exceed 10,000 miles in the aggregate. The completion of this splendid system is due, partly to the foresight of the original settlers, partly to the exertions of the Provincial Government, and partly to the railway and public-works policy of the late Sir Julius Vogel.

Geological Formation.

According to Sir James Hector, the main western ranges are composed of Upper Palæozoic rocks, having at their base extensive plains of Tertiary fluviatile formation, with occasional protruding ridges of Upper Mesozoic, forming low mountain-ranges subordinate to the main axis. Banks Peninsula consists of basic volcanic rocks.

Area, Nature, and Disposition of Lands.

The area of the Canterbury Land District is 9,604,045 acres, of which the estimated area of forest-land is 516,030 acres. Forest-lands are found in Banks Peninsula and in the Mount Peel and Waimate districts, where the timber consists chiefly of rimu, totara, and matai; at the sources of the Waiau-ua, Ashley, Waiaccomplishment of this great engineering work is due to the late William Sefton Moorhouse, at that time Superintendent of the Province. The natural advantages of the port have been enhanced by reclamation and harbour-works, which include two breakwaters, 2,010 ft. and 1,400 ft. in length respectively, extending from Officer and Naval Points, enclosing about 107 acres; long lengths of wharf accommodation, 10,041 ft.; a patent slip for ships up to 400 tons; and a splendid graving-dock 450 ft. long, width on top and bottom 82 ft. and 46 ft. respectively, the entrance being 62 ft. wide, well equipped with machinery and all requisites for repairs. Ships drawing up to 23 ft. can berth alongside the spacious wharves and sheds. The railway, electric-light, machinery, and appliances are available throughout, which renders loading and unloading practicable both by day and by night. As an indication of the volume of trade dealt with at the port, it may be noted that for the year ended March 31, 1900, the imports were valued at £1,550,702 and the exports at £[illegible],111. The town nestles on the side of the range, the streets being generally steep, flanked by solid stone buildings; and a background of green spurs and bold rocky faces gives to the whole a charming and picturesque appearance. The water-supply is obtained from artesian wells on the Christchurch side of the hills. To Christchurch there is a bridle-track over the range, and a carriage-road *viâ* Sumner. The harbour is well defended by fortifications and batteries on Ripa Island and the mainland. The population in 1899 was 4,026, with 825 houses.

Timaru, the third town in importance, is situated on the coast and railway-line between Christchurch (100 miles) and Dunedin (131 miles). The boundaries of this borough were extended in 1898, the estimated area, including town belt, being now 1,100 acres. It has a well-constructed artificial harbour, the port of shipment for the agricultural and pastoral districts of Geraldine, Timaru, and Waimate. The harbour is enclosed by a breakwater built of blocks of concrete; a rubble wall—the North Mole—starts from the shore a quarter of a mile away to the north, and extends easterly to a point 350 ft. from the breakwater. The enclosed space is 50 acres. During the year ended March 31, 1900, the value of goods imported here was £126,937 and of produce exported £944,492. The town is picturesquely situated on rolling hills overlooking the sea. The streets are [illegible], but the public and commercial buildings, churches, and private houses are generally well and handsomely built of stone. The chief industries are meat-freezing, wool-milling, flour-milling, &c. The town has a good high-pressure water-supply, and is connected by well-made roads with the surrounding districts, and by railway with Fairlie, the route to the Mackenzie Country and Mount Cook. The population of [illegible] was 6,795, with 1,190 inhabited houses.

[illegible] towns in Canterbury the following deserve mention: Rangiora, population [illegible], with 397 houses, twenty miles from Christchurch by northern line of [illegible] is situated in the centre of a fine farming country, and possesses manu[illegible] including seven flax-mills, flour-mill, and brewery. The town and neigh[illegible] are much benefited by plantations.

[illegible] on the Waimakariri, population 2,000, about fourteen miles from [illegible] by the northern railway-line, lies in a rich farming country, rendered [illegible] attractive by the extent and variety of plantations and gardens. [illegible] and various industries, including ham- and bacon-curing, saw-[illegible] and agricultural-implement works. Here also is the famed Kaiapoi [illegible] which employs 600 hands when trade is brisk. The Waimakariri is [illegible] vessels to the centre of the town.

[illegible] the newest of the towns, has a population of 2,100, with 490 houses, [illegible] miles from Christchurch on the southern trunk line. It is a well-[illegible] extensive and beautiful recreation-grounds and gardens. It owes [illegible] settlement of the plains, the surrounding country being well [illegible] There are two breweries, meat-freezing works, a cordial-[illegible] gasworks, ironworks, woollen-mill, brickworks, &c.

[illegible] is situated on the Waihi River, four miles from [illegible] about eighty-six miles south-west from Christchurch. It is a [illegible] in a first-class farming district, and has a beautiful park of

Temuka, eighty-eight miles from Christchurch, on the southern railway-line, is a well-built town, with good agricultural land all round. It possesses three flour-mills, a butter- and cheese-factory, brewery, foundry, fellmongery and paper-mill. There is a beautiful park and domain. The population of the borough is 1,550 persons.

Waimate, population 1,500, is situated on the Waihao Forks Railway, about four miles from Studholme Junction, some 111 miles from both Christchurch and Dunedin. This town is the centre for an extensive back-country, and a splendid agricultural area. It owes its origin to the sawmill industry of the Waimate bush. Industries: saw-milling, flour-milling, &c.

Akaroa, population 630, situated on the noble harbour of that name, was founded in 1840, in the first instance by the French. It is a quiet, picturesque little place, much patronised by Christchurch residents and others as a summer resort and watering-place. It was here that Captain Stanley hoisted the British flag on 11th August, 1840, when he took possession of the Middle Island on behalf of the Crown, forestalling the French by a few hours only. A suitable obelisk commemorating this event has recently been erected on the spot.

THE OTAGO LAND DISTRICT.

J. P. Maitland, Commissioner of Crown Lands.

John Hay, Chief Surveyor.

Boundaries and Area.

The Otago Land District lies between the 44th and 47th parallels of south latitude, and extends from 167° 20′ to 171° 10′ of east longitude. It is bounded on the north by the Canterbury Land District; on the south-east and south by the ocean; on the west and south by the Waikawa, Mokoreta, Slopedown, Waikaka, Chatton, Wendon, Waikaia, Gap, Rockyside, and Kingston Survey Districts, the western and southern shores of Lake Wakatipu, the Mid-Wakatipu, Mavora, Swinton, Eglinton, Arran, and Doon Survey Districts, and a straight line from the north-east corner of the last-mentioned district to the nearest arm of George Sound, and by George Sound to the ocean; and on the north-west by the ocean to Big Bay.

The district measures about 160 miles from Milford Sound on the west coast to Waikouaiti Bay on the east coast, and the same distance from north to south. Its area is 9,482,800 acres.

Physical Description.

The country generally is mountainous, the highest land being to the north-west, and culminating in Mount Aspiring, 9,960 ft. above the level of the sea.

The west coast mountains are remarkably rugged and grand; and of the thirteen sounds that pierce this coast, three are within the limits of the Otago Land District, the remaining ten being on the west coast of the Southland District. These three are Milford Sound, Bligh Sound, and George Sound. Milford Sound, though only eight miles in length, contains some of the grandest scenery in the world; and fourteen miles inland from its head is the great Sutherland Waterfall, 1,904 ft. high, possibly the highest waterfall known. Bligh Sound is smaller than Milford, and not nearly so interesting; but George Sound is larger, and very picturesque.

A tourist track has been opened from the head of Te Anau Lake to Milford Sound, and a practicable route has also been discovered, and a track formed, from the north-west arm of the middle fiord of Te Anau Lake to the head of George Sound.

Te Anau Track.—A guide works on this track from December to April. He carries a fortnightly mail between Lake Te Anau and Milford Sound, and also meets each trip of the "Waikare." There is ample accommodation for tourists who wish to make the journey in short stages, as there are huts erected at six different places on the track.

For nearly one hundred miles inland from the west coast the country is very mountainous, but at a distance of sixty or seventy miles from the south-east coastline it begins to get gradually lower, taking the form of rolling hills and downs along the sea-shore.

Rivers and Lakes.

The largest rivers are the Clutha, Taieri, and Waitaki: the first-named drains Lakes Wakatipu, Wanaka, and Hawea; the last, Lakes Ohau, Pukaki, and Tekapo, in the Canterbury District. Te Anau, the largest lake in the Middle Island, lies partly in the Otago and partly in the Southland District. The dimensions of these lakes are as follows:—

Lakes.	Length in Miles.	General Breadth in Miles.	Area in Square Miles.	Height above Sea-level in Feet.
Te Anau ...	38	1 to 6	132	694
Wakatipu ...	50	1 to 3½	114	1,069
Wanaka ...	29	1 to 3	75	928
Hawea ...	19	3	48	1,062
Ohau ...	11	1 to 3	23	1,720
Pukaki ...	11	2½ to 5	31	1,588
Tekapo ...	15	1 to 3½	32½	2,325

These lakes are situated in mountainous country; they are of glacial origin, and all very deep.

The Clutha River is the largest in New Zealand, and is estimated to discharge over 1,000,000 cubic feet per minute. It has a rapid current, but is navigable for small steamers for a distance of forty miles from its mouth. The Waitaki is not a navigable river. For some seventeen miles from its mouth the Taieri River is affected by tides, which run up one branch into Waihola Lake, and up the other branch as far as Allanton (Greytown).

There is a small steamer on Waihola Lake, and another on the Taieri River at Henley. During the summer season both run excursion trips to the mouth of the river when required. The distance in each case is about eight miles.

Plains.

There are some considerable areas of tolerably level land in the interior, the largest being the Maniototo Plains, the Idaburn, Manuherikia, and Upper Clutha Valleys. Their dimensions are approximately as follows: Maniototo Plains, length, twenty-eight miles; average breadth, ten miles; Idaburn Valley, twenty-five miles by four miles; Manuherikia Valley, thirty-five miles by four miles; Upper Clutha Valley, thirty-three miles by five miles.

The Taieri Plain, nearer the coast, is about the same size as the Idaburn Valley, and is very fertile. Other plains are the Waitaki in the north, the Tokomairiro, the Strath-Taieri, the Tapanui, and the fertile Inch-Clutha, lying between the two branches of the Clutha River, and consisting entirely of alluvial deposit. There is also a good deal of low country, chiefly rolling downs, on the south-west side of the Clutha near the sea.

Forests.

The forest-land lies mostly along the sea-coast, the largest area of bush being Tautuku Forest, about forty miles in length and fifteen miles in breadth. The western part of this forest is in the Southland District. The other principal forest areas are in the following localities, viz.: north of Dunedin, east of the Tapanui mountains, in the upper valley of the Waikaia River, and towards the north-west coast.

The forests of Otago contain a large variety of useful timber, both hard and soft wood; some being suitable for building purposes, while other varieties are highly ornamental, and much prized for cabinet-work.

Building Stones.

Building-stones of good quality are found in various places throughout Otago. The Port Chalmers quarries afford an inexhaustible supply of bluestone, a basaltic stone of great hardness and durability; and the neighbourhood of Hindon furnishes a bluestone of superior quality. A hard freestone of excellent quality is found at Waikawa, where there is a large hill of it close to the water's edge. Blocks of very great size can be obtained. There is also a freestone of superior quality on the late Hon. W. J. M. Larnach's property on the Peninsula. A dense dark granite is obtainable on Ruapuke Island; specimens, both tooled and polished, may be seen in the base and pilasters of the new Government Life Insurance Buildings at Dunedin. A soft white building-stone—the well-known Oamaru limestone—is found in large quantities along the railway-line near Oamaru, from whence a good deal is exported to other parts of New Zealand and to the neighbouring colonies. A similar kind of stone is found at Otekaike, about two miles from the railway-station, and it may be interesting to note that during the years 1891–93 about 3,000 tons of stone were sent from the Otekaike quarries to form the facings of the Melbourne Fish-market.

Limestone for Burning.

Limestone is found in the following places: Oamaru, Otekaike, Otepopo, Waihemo, Maniototo Plains, Waikouaiti, Lower Harbour, Peninsula, Waihola, Millburn, and Wakatipu.

The Millburn Lime and Cement Company burn large quantities of lime at their Millburn works, from whence it is sent to all parts of Otago, for building purposes, gasworks, &c. It is also largely used in farming, and the productiveness of the Tokomairiro Plain has been greatly increased of late years by its application to the soil. Large cement-works belonging to the same company have been open for some years on the reclaimed land in Otago Harbour, near Dunedin. The cement manufactured at these works is considered fully equal, if not superior, to the best imported, and is largely used in building and other constructive works.

Coal and Lignite.

No first-class coals have yet been discovered in Otago suitable for ocean-going steamships. In the southern portion of the district and in part of Southland thin seams of coal of a bituminous character exist, but so far nothing of a commercial character has been found. These coals are of Mezozoic age. First-class brown coals are worked in several parts of Otago and Southland, the principal seats of the industry being Shag Point, Green Island, Kaitangata, and Nightcaps. Considerable quantities of coal are now being mined in Central Otago, the dredging requirements having directed the attention of miners and others to the deposits of brown coal found in almost every district.

Beds of lignite are also found in numerous localities, chiefly round the margins of the old lake-basins and along the courses of the older river-valleys, and are worked on a small scale to supply local demands.

The output of coal and lignite in Otago and Southland for 1899 was 297,967 tons.

Climate.

The climate of Otago varies greatly in different neighbourhoods, and sometimes a distance of a few miles only separates districts very dissimilar in this respect. A large area in the interior of Otago has what may be called a dry climate. This area includes the Maniototo Plains, the Idaburn and Manuherikia Valleys, and extends to Lakes Wakatipu, Wanaka, Hawea, and Ohau on the west and north, and to the Waitaki River on the north-east. From Oamaru the direction would be across country to the Lammerlaw Ranges, and thence to Mount Benger and the southern end of Lake Wakatipu. This part of the country is well adapted for sheep of all kinds, especially merinos. Some of the runs in the hilly country are capable of carrying 20,000 sheep.

West Coast.

In marked contrast to central Otago is the West Coast District, which may be described as having a wet climate. Not that the number of wet days in the year is very great, but it is subject to very heavy rains from the north-west, the fall generally exceeding 100 in. per annum. But, although wet, the climate is mild, and the vegetation is consequently luxuriant. The only settlers of this part of the country are Mr. and Mrs. Sutherland, who keep a house of accommodation for tourists at the head of Milford Sound. There are very few visitors to the Sounds during winter, but in summer the tourist traffic is considerable. Towards the south-east and south coasts of the district the climate is moist, being somewhat similar to that of Dunedin, where the average rainfall is 35 in., distributed over 163 days in the year.

Fruit.

There are some fine fruit-growing districts in the valley of the Clutha, from below Roxburgh right up to Lake Wanaka. The summers are dry and warm, and the soil suitable. Apricots, peaches, &c., come to maturity fully a month before they do at Dunedin, and grapes ripen in the open air. There is a great future for this neighbourhood in the growing of those varieties of fruit which agree with and thrive in a dry climate. The grape might be cultivated either for wine-making or for the table, and some varieties could be made into good raisins. The dryness of the atmosphere is favourable for preserving all kinds of fruit, while the Otago Central Railway will bring the neighbourhood into direct communication with a market.

Crops.

Cereals of all kinds do very well over nearly the whole of the provincial district, which includes Southland. The following are the agricultural statistics :—

Total area under cultivation in the provincial district, including sown grasses and fallow land, 2,335,910 acres. Corn crops sown or intended to be sown this season for threshing, comprising wheat, oats, barley, rye, maize, peas, beans, 285,804 acres; land broken up and grassed, 1,434,025 acres, and 2,673 acres in clover, while 293,177 acres have been surface-sown with grass without the land being first broken up; green-crops, comprising potatoes, turnips, mangolds, rape, beet, carrots, &c., 221,511 acres; plantations, &c., including private gardens, market gardens, orchards, and vineyards of a quarter-acre and upwards, 10,644 acres, and 32,643 acres ploughed but not planted. The area in tussock, or native grass, is 7,860,880 acres.

	Acres.	Estimated Yield per Acre.	Total.
Wheat for threshing ...	61,460	29 bushels	1,782,340 bushels.
Oats „ ...	210,043	36 „	7,561,548 „
Barley „ ...	12,977	33 „	428,241 „
Rye „ ...	1,265	23 „	39,095 „

Stock.

The total number of sheep in Otago Provincial District, which includes Southland, on the 30th April, 1899, was 3,715,485, of which number about 700,000 were merinos. On an average, about one-third of the flocks consist of breeding-ewes. The shearing is mostly done by hand, but the Wolseley shearing-machines have been introduced on about ten stations, the number of machines in each wool-shed varying generally from ten to fifteen, though there is one shed at Benmore, near Lake Ohau, where there are twenty-eight machines driven by a turbine.

The above-mentioned district had also, in November last, 53,711 horses; 35 mules and asses; 186,991 cattle; and 31,353 pigs.

The rabbit-pest is still a severe tax on the stockowners; the number of skins exported last year for the whole colony being 7,891,648, nearly the whole of which came from Otago; the monetary value being £81,118.

Freezing Establishments.

There are nine meat-freezing and preserving-works in Otago. The principal freezing establishments are at Oamaru, at Burnside, and at Port Chalmers. At Oamaru there are two Bell-Coleman machines, and a 60-ton Hercules refrigerator, capable of freezing 1,200 sheep a day, and there is storage-room for 20,000 carcases. At Burnside there are two Haslam machines, both driven by steam. One can supply 40,000 cubic feet of cold air per hour, and the other 60,000. Also a 70-ton Hercules machine, capable of freezing 2,000 carcases per day, and having storage-room for 30,000 carcases. The Port Chalmers freezing-works, erected in 1896 by the Otago Dock Trust, cost £4,500. They are used principally for the storage of butter prior to shipment, but the freezing-chambers have also been used for sheep, rabbits, and fish. The refrigerating machinery includes a 12-ton Hercules refrigerator. The capacity of the building is 30,000 cubic feet, and 50 tons of butter can be handled per week. The capacity has lately been nearly trebled, at an additional cost of £8,500. These additions include a 35-ton Hercules refrigerator.

Woollen-mills.

There are five woollen-mills at work in Otago, employing some 800 hands. The amount paid in wages is about £51,300 per annum, and the machinery is 800-horse-power. £80,000 worth of wool and other materials are used per annum, and the turn-out of manufactured goods exceeds £175,000 yearly. The woollen industry in Otago is of greater magnitude than in any other district of New Zealand.

Besides supplying local needs Otago Provincial District exported last year 23,508,204 lb. of wool, having a value of £707,707.

Clothing-factories.

In clothing-factories, also, Otago takes a prominent place, having nine, employing 700 hands, whose wages amount to £28,000 per annum.

Dairy Factories.

The dairying industry is steadily increasing in Otago. Several new factories have been erected, and the Taieri and Peninsula Factory has extended its creameries to various outlying districts, down to Inchclutha in the south, in Otago central, and right up to the Oamaru District. Their supply is increasing. The company shipped this season to London 450 tons of butter up to the end of February. Through the flush of the season they make seven to eight tons of butter per day, and through the rest of the season never much less than two tons a day. The bulk of the butter in Otago is theirs, and the quality is very highly appreciated in the London market. The export of butter from Otago this year is about nine hundred tons, and of cheese two thousand five hundred tons, showing a considerable increase. Prices have ruled high, and dairymen have been much encouraged, and next year several new cheese-factories will be in operation. Most of the dairy factories, indeed nearly all, are co-operative, the whole proceeds, less expenses, being divided among the milk-suppliers. The Taieri and Peninsula Milk-supply Company is a most admirable example of well-managed and therefore highly successful co-operation.

Gold Production.

Otago produces about one-third of all the gold taken out in New Zealand. The number of Europeans engaged last year was 3,895, and number of Chinese, 912.

Gold is found very generally distributed throughout Otago, except in the southern portion of the district. The principal localities are: Clutha Valley, Tuapeka, Shotover, Cardrona, Tinker's, St. Bathan's, Mount Ida, Nevis, Bannockburn, and Maerewhenua.

Last financial year the Otago Provincial District produced 126,706 oz. of gold, having a value of £513,001.

Chief Towns.

The following are the chief towns of Otago, with their population, including all having 1,000 inhabitants and upwards: Dunedin, and suburbs, 49,791; Oamaru, 5,411; Port Chalmers, 2,100; Mosgiel, 1,500; Milton, 1,500; Kaitangata, 1,400; Lawrence, 1,050.

City of Dunedin.

Dunedin, the capital city of Otago, is situated at the head of Otago Harbour, which is divided into two parts—the upper and lower. The lower harbour is six miles long from Taiaroa Heads to Port Chalmers. The upper harbour, from Port Chalmers to Dunedin, is seven miles in length. Dunedin and Port Chalmers are also connected by railway.

Although the hills surrounding Dunedin are rather tame in character and outline, the city itself is picturesquely situated. The business part of it is on level land near the harbour, and the residences occupy the sloping hills which rise on the west side of the city. The city proper is about two miles and a half long by seven-eighths of a mile wide, and is bounded on the land side by what is called the Town Belt. This reserve averages one-fifth of a mile in width, and comprises 500 acres, a great part of which is virgin bush. A pretty road, called the Queen's Drive, has been laid out through the Belt from end to end, from which many fine views of the town and harbour can be obtained.

It is thirteen miles down the harbour to the Heads in a north-easterly direction, but the Ocean Beach, lying to the south-east, is only two miles from the centre of the city, and the favourite seaside resort—St. Clair—is about three miles. Trams run to both these places at short intervals. The city is also connected with the suburban boroughs, lying on the hills overlooking the town, by excellent cable-tramways. The Botanical Gardens to the north of the city are well laid out, the native bush contrasting with the cultivated parts. The Reservoir also, which is within easy walking distance, and the drive to Blueskin Bay, have many beauties.

Dunedin is well supplied with elementary schools, there being six large schools in the city proper, with an attendance of 3,400 pupils, and eight more in the suburbs, with 3,631 pupils.

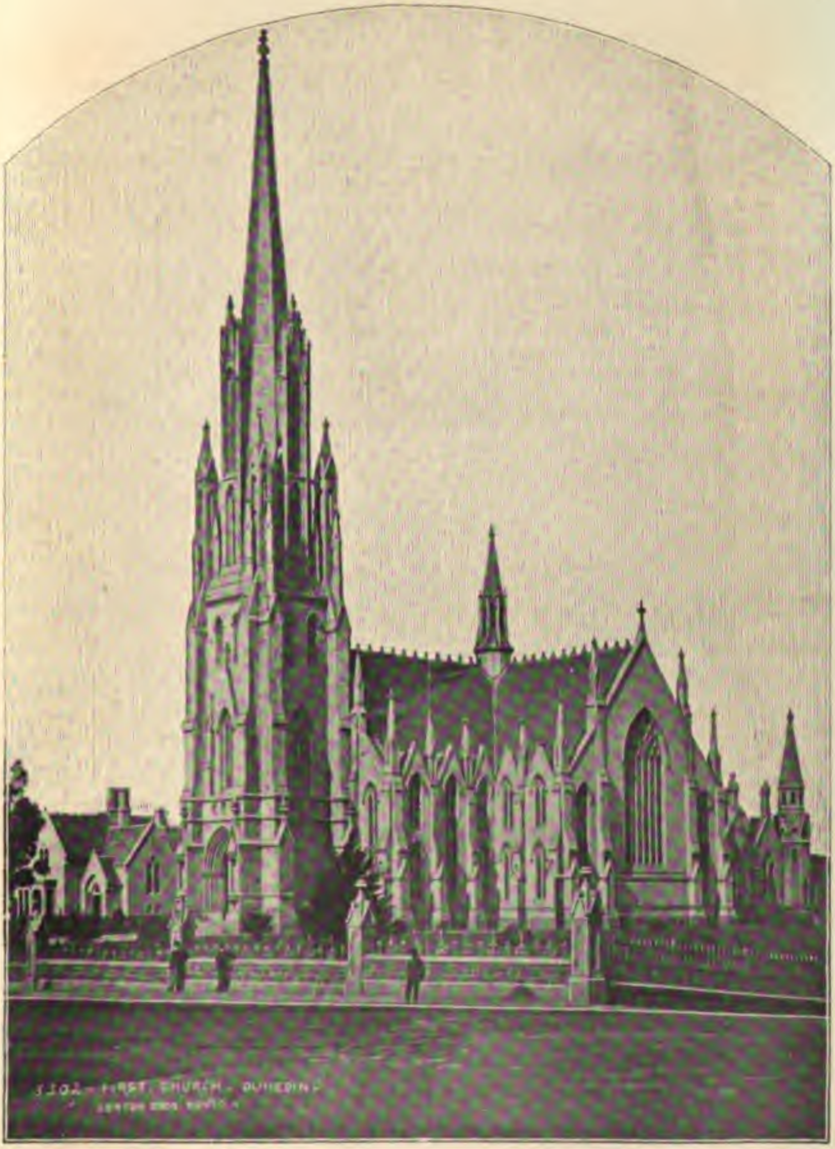
There is also in Dunedin a training-college for teachers. The students in training number nine men and thirty-four women. They devote every fifth week during the session to practice in teaching and management of classes in the ten associated schools of the city and suburbs.

The School of Art and Design is in the same building as the Normal School, and has a staff of five teachers and a pupil-teacher. In 1899 there were 386 students in attendance.

The Otago Boys' High School stands on a commanding plateau 300 ft. above the business part of the city and the harbour. The school was opened on the 3rd August, 1863, in the building in Dowling Street now occupied as the Girls' High School. The new buildings were opened by the late Sir William Jervois, Governor, in February, 1885. The teaching staff, including the Rector, numbers ten; the attendance is about 200.

The Otago Girls' High School was opened on the 6th February, 1871, with a roll of 78 pupils. The present attendance is 136, with a teaching staff of nine. Otago holds the proud distinction of having established the first Girls' High School in the Australasian Colonies. Among the earnest band of workers who laboured to establish this first High School for girls the name of Miss Dalrymple stands pre-eminent, and will ever be held in grateful remembrance by the people of Otago.

The Otago University was founded in 1869, and opened in 1871. It is well housed in a handsome pile of buildings in the domestic Gothic style. There are four separate faculties in the University—viz., arts and science, law, medicine, and mining. The School of Medicine provides the full course for a medical degree of the University of New Zealand. There is a Medical Museum in the University buildings containing anatomical, pathological, and other preparations and models. The teaching staff numbers at present twenty-three professors and lecturers. The School of Mines occupies a separate (temporary) building. There are at present



Muir and Moodie
Photo,

First Church, Dunedin.

about sixty students going through the prescribed courses for the diplomas and certificates in the Mining, Metallurgical, Geological, Mine and Land-surveying and the Assaying Divisions. Of undergraduates keeping terms there are 253—viz., 219 men and 34 women. The University Library contains over 5,000 specially selected volumes, and is open to the public under certain conditions for purposes of reference. The Chemical and Physical Laboratories are well fitted up, and furnished with all necessary instruments and appliances. There are six scholarships tenable at the University, ranging in value from £15 to £30 per annum.

The public Museum, of which the Professor of Biology is Curator, is under the control of the University Council. It is situated in Great King street, about five minutes' walk from the University. There is an art gallery attached, which contains some good works of art. Up to the present time only the central portion of the original design for the Museum building has been erected.

The Dunedin Athenæum and Mechanics' Institute possesses a fine library of over 17,000 volumes, and a membership of over 950 subscribers. Besides the Circulating Library there is a Reference Library, and two good reading-rooms, well supplied with newspapers and magazines.

There are some fine specimens of architecture in Dunedin, the buildings for the most part having an air of permanence and solidity. Some of the churches are very handsome. The First Church, in Moray Place, and Knox Church, in George street, are both handsome stone structures, and St. Joseph's Cathedral (Roman Catholic) is built of stone in the decorated Gothic style. The portion at present constructed will seat 1,000 persons, and has cost £23,000.

The Cargill Monument, which was erected to the memory of the late Captain Cargill, the founder of the Otago settlement, stands in the Triangle, between the Customhouse and the Bank of New Zealand. It is an ornate specimen of early decorated Gothic.

Towns and Surrounding Country.

Port Chalmers (eight miles from Dunedin) situate on Otago Harbour, midway between the Heads and Dunedin, has a population of 2,100 inhabitants. It is the chief port of Otago, and possesses every accommodation for Home vessels, including dry dock, 80-ton sheer-legs, steam-hammer, and other appliances, besides several private foundries, cool-storage chamber, &c. The Port Chalmers graving dock is described in the article on page 56.

Leaving Dunedin by the northern railway, winding in and out through the hills which surround the town, and skirting the precipitous cliffs of the coast-line, the first station of importance reached is Waitati, a favourite seaside resort in Blueskin Bay; distance, seventeen miles. Fifteen miles beyond is Waikouaiti; population, 760; pleasantly situated on the Hawksbury lagoon, the centre of a flourishing farming country. The next place of note is Palmerston, forty-one miles from Dunedin, with 775 inhabitants. A branch-line leaves Palmerston and runs nine miles up Shag Valley to Dunback. Six miles further on the main line there is a branch to Shag Point, a coalfield, with two pits being actively worked.

Oamaru (seventy-eight miles) is the second town in Otago, having a population of 5,411. It is the centre of a large farming district, and has a good harbour, formed by a concrete breakwater, for the reception of ocean-going ships. The chief exports are wool and grain. A branch-line runs from the junction near Oamaru up the Waiareka Valley to Ngapara, seventeen miles, and Tokaraki, twenty-six miles from Oamaru, and another seven miles by road brings us to Livingstone.

Starting from Oamaru, and proceeding to Central Otago, *viâ* the valley of the Waitaki River, the first part of the journey is accomplished by rail across the fertile Papakaio Plains to Awamoko (ninety-six miles), and thence following up the Waitaki River past Duntroon to Kurow (120 miles). At Kurow the traveller leaves the railway and follows the course of the Waitaki through pastoral country to Rugged Ridges Station (133 miles); a little beyond Rugged Ridges the road leaves the Waitaki River, and crossing the Ahuriri Pass (141 miles), strikes the Ahuriri River, which it follows up past Omarama Station (158 miles) to the junction of Longslip Creek; it then ascends this creek until Lindis Pass saddle is reached

	Holdings.	Acres.
13. Lands held as improved-farm settlements	54	7,464
14. Lands held as small grazing-runs	249	504,836
15. Lands held under pastoral license, not including bush ...	248	4,389,812
16. Lands held under lease and license for miscellaneous purposes, exclusive of gold-mining	452	66,021
17. Lands acquired and disposed of as lease in perpetuity under Land for Settlements Act, rural	325	40,880
18. Lands acquired and disposed of as small grazing-runs under Land for Settlements Act	3	3,667
19. Lands acquired and disposed of as miscellaneous licenses under Land for Settlements Act	40	631
20. Crown lands open for selection (including 5,779 acres under Land for Settlements Act)	...	115,848
21. Crown lands being prepared for selection (including 7,035 acres under Land for Settlements Act)	...	15,900
22. Land open for application under pastoral licenses ...	11	78,637
23. Lands held by aboriginal natives	...	16,500
24. Balance of Crown lands, including mining reserves, public reserves not vested, bush-lands, roads, barren country, &c.	...	1,605,668
25. Lakes, and Clutha and Taieri Rivers	...	179,200
Total area of district (14,817 square miles),		9,482,800

Tenants of lands included in 2 and 4 have the right of acquiring the freehold, as have tenants of 3 up to twelve years from the date of issue of the lease, and of 6 in the case of leases issued prior to the Act of 1891. There is no right of acquiring the freehold for tenants of lands included in 5, 11, 12, 14, 15, 16, 17, 18, and 19, and in the case of No. 13 the right of acquiring freehold applies to portions only.

Local Industries.

At the census of 1896 the following existed in Otago and Southland. Four bone-mills and artificial-manure factories, where substances that might otherwise go to waste, or pollute the air and water, are turned to profitable account, and made to increase the fertility of the soil. The lime- and cement-works at Dunedin have already been mentioned. There were thirty brick-, tile-, and pottery-manufactories, the largest pottery-works being at Milton, where all kinds of useful household crockery-ware are made. Twelve agricultural implement factories were in operation, turning out annually a large supply. Also, fourteen boot- and shoe-factories; six boat-building, eighteen coach-building, twenty-eight fellmongering, tanning, and wool-scouring establishments; twenty-two aërated-water and cordial manufactories, seventeen breweries, five coffee and spice works, three fruit- and jam-factories, one ink-making establishment, three paper-mills, six rope- and twine works, one soap- and candle-making establishment, six gasworks, and fifty-one sawmills and door- and sash-making factories. Also, twenty-four foundries, including brass-founders and coppersmiths, beside stove and range manufactories, iron-rolling works, and works for making every description of engineering and mining machinery and appliances; and a piano manufactory in Dunedin, which has been open for the last thirteen years. The types manufactured are cottage pianos and upright grands, at prices ranging from thirty to sixty guineas. The present output is from twenty-five to thirty per annum.

Besides the above there were eighteen bacon-curing establishments, eight fish-curing and preserving works, two rabbit-preserving works, twenty-three grain-mills, six sugar-boiling and confectionery works, six malt-houses, two colonial wine-making establishments, three sauce and pickle factories, one vinegar works, one glue factory, two boiling-down works, three cooperages, four woodenware factories, six chaff-cutting establishments, one paper-bag and -box factory, one tobacco-pipe factory, six tinware factories, twenty-nine printing offices, four basket and perambulator [illegible] wo brush and broom factories, one cutlery factory, four cycle factories, two saddlery and harness factories, one portmanteau factory, eight sail and oilskin factories, thirteen furniture factories, four Venetian-blind works, two starch manufactories, four chemical works, one hæmatite paint factory, one sheep-dip factory, one match factory, two flock-mills, three cleaning- and dyeing-works, two waterproof factories, three hat- and cap- factories, three stocking-weaving factories, one bag- and sack- factory, seven flax-mills. And the following, which have been more fully described in preceding paragraphs—namely, nine meat-freezing and -preserving works, four woollen-mills, nine clothing factories, forty-four butter- and cheese-factories: making a total of 516 industrial establishments, employing 7,055 persons. Approximate value of manufactures yearly, £2,153,473.

THE SOUTHLAND LAND DISTRICT.

D. Barron, Chief Surveyor.

Physical Features.

The Southland District, comprising the Counties of Southland, Wallace, Fiord, and Stewart Island, bounded on the north and east by the Otago District, and on the south and west by the Tasman Sea, may be roughly said to lie between south latitudes 45° and 47° and east longitudes 166° 15′ and 169° 15′. For administrative purposes, however, the Snares, Auckland, Enderby, Campbell, Antipodes, Bounty, and all other islands within the limits of the colony south of the 47° parallel of south latitude are included in it.

Area and Nature of Lands.

The total area of the district, including Stewart Island, but exclusive of Solander, Ruapuke, and the other small islands enumerated above, is 6,966,592 acres, of which 500,000 are covered with bush. The bulk of the bush-land lies between the lakes and the south and west coasts, in the neighbourhood of Forest Hill, Hokonui, Waikawa, &c. The timbers of commercial value are totara, rimu, miro, matai, rata, and kamahi, in mixed bushes; but *Fagus fusca* and other beeches predominate on the high lands between the lakes and the fiords on the west coast.

The open land in its natural state carries tussock and snow-grass, fern, flax, and manuka, &c., and there is a very considerable area of marsh-land, interspersed here and there with peat bogs.

The most striking feature of this district is the number of well-defined rivers and valleys, the latter often widening out to such an extent as to form very extensive plains. Commencing with the eastern side, the Mataura, Oreti (or New River), Aparima (or Jacob's River), and Waiau are the most prominent illustrations of this; but these rivers by no means exhaust the list, as they all have numerous tributaries, which exhibit the same features on a smaller scale.

Speaking generally, the watersheds of these rivers do not attain any great height until followed far inland, and near the great lakes to be presently noticed. From what has been said above it follows that the extensive plains and valleys referred to are of alluvial formation, in many places of very rich and fertile quality, and capable of raising crops of every known product, subject, of course, to climatic limitations. Generally these plains and valleys rise from the river-levels in a very gradual slope, sometimes into a series of terraces from 10ft. to 50ft. in height, and sometimes into undulating hills, intersected at frequent intervals by lateral gullies, affording natural drainage and an abundant supply of water.

These hills are covered with an indigenous growth, consisting of tussock and other grasses, fern, flax, &c., and even in their native state afford excellent grazing for sheep.

Near the large lakes, such as Wakatipu, Te Anau, Manapouri, Hauroto, and others, and between these and the West Coast, the country becomes very high, often reaching 5,000ft. and 6,000ft. above sea-level, with very steep and rugged spurs and ravines, these in most cases being covered with a dense growth of timber, principally of the birch or beech tribe, for two-thirds of their height: the tops, however, often carry tussock and other herbage, affording admirable pasture for sheep in summer; but stock have to be removed from April to October, during which period this country is generally covered with snow.

Southland does not contain so much forest as most of the North Island districts, nevertheless there is a very considerable quantity in the eastern, southern, and western parts, and a large export trade is done in the different kinds of pine and other timbers used for building, engineering, furniture-making, &c.

From what has been said of the river systems it will be evident that the country is well supplied with water, although none of the rivers can be used for purposes of internal communication; but the plains are traversed by railways for considerable distances from the principal towns, and where the railways end communication is continued by good roads, so that there is probably no part of the colony so well off for means of transit.

Agriculture.

Having already touched on the character of the soil, it only remains to say that the plains, terraces, and lower hills are well adapted for raising wheat, oats, and other cereals, turnips, mangolds, beets, and the various other crops common to temperate climates. Wheat is not so widely grown as it might be, for the reason, probably, that the pastoral branches of farming receive more attention than the agricultural, and wheat is not required for these; whereas oats are largely grown to feed sheep in the form of chaff; turnips also are much cultivated for winter food. Where wheat is grown the yields are very satisfactory, ranging from 40 to 60 bushels per acre, while oats frequently give 80 to 100 bushels.

Linseed is now receiving some attention from farmers, as they find ready sale for it to the manufacturing chemists at remunerative prices, a fair crop yielding over £5 per acre.

Dairy-farming, &c.

Dairy-farming now forms a very important industry in this district, a number of factories having been established within the last two or three years, the total number in the district being twenty-three; one being a large condensed-milk factory, one making first-class Stilton cheese, and the rest being cheese and butter factories.

Sheep-farming.

By far the most important industries are those connected with the raising and export of mutton and wool. Some years ago sheep-farming was much hindered by the inroads of rabbits; but owing to the repressive measures adopted there has been a marked abatement of the pest, even on high back-country, and thus it has come to pass that country which a few years ago was absolutely denuded of vegetation now shows unmistakable signs of recovery. The hill-country, although it does not carry a large proportion of stock to area, is eminently healthy. The average carrying-capacity over the whole district would probably be under one sheep to the acre. Until within the last few years most of the runs were stocked with merinos, but owing to the decline in price of merino wool, and to the carcase being unacceptable to the European market, these sheep have, generally speaking, been replaced by Leicesters, Lincolns, Romney Marsh, Cheviot, and crossbreds of various kinds, better suited to the existing demands. Large establishments for slaughtering and freezing sheep are at work. The latest of these, erected near the Bluff Harbour, is considered to be the most complete in the colony, being provided with all possible labour-saving machinery and appliances for working up the by-products into articles of commerce.

Coal and Gold.

Extensive seams of coal and lignite are distributed over the district, and in many places the annual output is considerable. Peat is also found in some up-country neighbourhoods, and is used for fuel where wood and coal are scarce. Gold is found all over the district, and a large number of persons are engaged in obtaining it either by sluicing or dredging. A considerable amount of capital has been invested in beach-dredges worked by steam. Not long ago gold-bearing reefs, reported to be of great richness, were discovered at Wilson's River, near Preservation Inlet.

Fish.

Salt-water fish abound in great quantities in the waters surrounding Stewart Island, and oysters are found on banks between that island and the Bluff. All the large rivers, and many of the tributaries, are well stocked with trout, and one river —the Aparima—had salmon-spawn put into it some years ago.

Fruit.

The small English fruits, such as gooseberries, currants, raspberries, strawberries, &c., grow in great profusion, as do also apples. Stone-fruits are not so common, although peaches, nectarines, apricots, &c., do well when trained against nursery-walls in favourable aspects.

Climate.

The climate is bracing in winter, and warm and genial in spring and summer. The old residents state that there has been a marked decrease in the rainfall within the last decade. No regular observations have been recorded for the last few years, but it is believed that the average is about 30 in. a year. It may, however, be observed that more rain falls near the coast than inland, and also that the rainfall is more evenly distributed throughout the year than is the case in the northern part of the colony. The temperature varies from 40° in winter to 70° in summer.

Towns.

Invercargill, the chief town, was from the first well laid out with wide streets, and liberal reserves in the town belts for recreation purposes. The Corporation exercises a paternal care in providing water, gas, and in disposing of sewage, &c., for the citizens; and the streets are well lighted, paved, and maintained. Artesian water is pumped to the top of a handsome brick tower—which, by the way, is a very conspicuous landmark—and stored there in a tank, from which most of the houses within the town boundaries are supplied. The population, including suburbs, is nearly 10,000. There are rope-and-twine, carriage- and implement-factories, flour- and saw-mills, fellmongeries, brick- and pottery-works, iron-foundries, and various other industries. Exceptionally good beer is brewed here, and there are three first-class hotels. The Government Buildings, lately enlarged, are on a scale not often seen in a town of the same size. A clock and chimes of New Zealand make have been placed in the central tower. Although the Bluff is the principal port, Invercargill is provided with a second harbour for smaller vessels, in the New River Estuary, where there is a jetty with appliances for handling and receiving goods within the town boundaries.

The Bluff Harbour, which is connected by rail with Invercargill, does a very large shipping business, and derives additional importance from being the first and last port of call for steamers trading with Victoria and Tasmania.

Next in size to Invercargill is the Town of Gore, situated on the Mataura River, and at the junction of the trunk railway with the Waimea Plains Branch. Owing to this fact, and to the fertility of the land in the neighbourhood, Gore is rapidly growing in size and importance.

Riverton is a pretty little town, about twenty-five miles from Invercargill, with which it is connected by rail, and is situated on the estuary of Aparima or Jacob's River. This is the oldest settlement in Southland, and was a great resort for whalers in former years. The harbour is available for coasting-vessels, but the principal carrying-trade is done by rail. There are several sawmills in the neighbourhood.

The Town of Winton is on the Invercargill–Kingston Railway, about twenty miles distant from the latter, and is the centre for a good farming, sawmilling, and coal-mining district.

Lumsden is the junction of the Kingston and Waimea Plains lines. Coaches starting from this place take passengers and mails to the Lake country.

East of Invercargill is Fortrose, on the estuary of Mataura River, which can be entered by coasting-steamers. This place is surrounded by exceedingly fertile agricultural and pastoral country.

Eastward of Fortrose and about midway between that place and Catlin's River is Waikawa, a newly-settled township with a first-class harbour for coasters, and a large area of Crown land around it available for settlement. Steamers trading with Dunedin and Invercargill call here and at Fortrose at regular intervals.

Crown Lands for Disposal.

There remains for disposal a very large area of Crown land, probably more than 500,000 acres, but this can be estimated only roughly, because much of the district west of Waiau River is practically unexplored. It is true that this is chiefly forest-land, but it is beginning to be recognised here, as in the North Island, that when such land is once cleared and laid down with grass it is distinctly superior to most open country for grazing purposes; and grazing is and will long remain the principal industry of the colony. The land referred to lies around Waikawa Harbour, along the Waikawa–Catlin's Road, between the Jacob's and Waiau Rivers, and to the west of the Waiau. Stewart Island also contains a wide extent of Crown lands, mostly forest-clad. There are also considerable areas of open hilly country, carrying natural grasses, still in the hands of Government. These are to be found in various parts of the district, but are being rapidly taken up.

APPENDIX.

PRINCIPAL EVENTS.

DATES OF SOME OF THE PRINCIPAL EVENTS IN THE HISTORY OF NEW ZEALAND.

Dec. 13, 1642.—Discovery of New Zealand by Abel Jansen Tasman.

Oct. 8, 1769.—Captain Cook landed at Poverty Bay on his first visit.

June 30, 1788.—Macauly and Curtis Islands, of the Kermadec Group, discovered by Captain Sever, of H.M. transport "Lady Penrhyn."

Nov. 29, 1790.—Chatham Islands discovered by Lieutenant Broughton, in H.M.S. "Chatham."

Nov. 17, 1793.—Captain d'Entrecasteaux, with the "La Recherche" and "L'Espérance," discovered Raoul or Sunday Island. (The latter name was given by Captain Raven, of the transport "Britannia," who visited the island 6th Nov., 1796.)

Nov., 1793.—Lieutenant-Governor King's (of Norfolk Island) visit to Doubtless Bay.

1795.—The ship "Endeavour," Captain Bampton, sunk at Facile Harbour, Dusky Sound.

1800.—Antipodes Island discovered by Captain Pendleton.

1806.—Auckland Isles discovered by Captain Briscow, ship "Ocean," one of Enderby's whalers.

1806.—Ship "Venus" visited East Coast of New Zealand. She was taken by convicts at Port Dalrymple, Tasmania. Their visits gave rise to the Nga-Puhi southern expedition.

1807.—Defeat of Hongi and Nga-Puhi tribe at Moremonui, 10 miles south of Maunganui Bluff, Kaipara.

1809.—The taking and burning of the transport "Boyd" at Whangaroa.

1810.—Campbell Island discovered by Captain F. Haselburg, of brig "Perseverance."

1814.—First arrival of the Rev. Mr. Marsden at Bay of Islands, and introduction of Christianity. Horses, oxen, sheep, and poultry first brought to the colony.

Aug., 1815.—Attempted capture of the "Trial" and "Brothers" at Kennedy Bay.

1818.—Hongi's and Te Morenga's great expedition to East Cape.

1819–20.—Patuone, Nene, and Te Rauparaha's raid on Taranaki and Port Nicholson.

1820.—Hongi visited England; returned to New Zealand July, 1821.

1820.—H.M. store-ship "Coromandel" visited Coromandel.

1820.—Rev. S. Marsden travelled from Wai-te-mata *viâ* Kaipara to the Bay of Islands—the first white man to do so.

Aug., 1820.—The "Prince Regent" entered Auckland Harbour—the first vessel to do so.

Nov., 1821.—Fall of Mauinaina Pa, Auckland Isthmus, to Hongi.

Nov., 1821.—Ngati-Toa migration from Kawhia to Otaki under Te Rauparaha.

Dec., 1821.—Fall of Te Totara Pa, Thames, to Hongi.

May, 1822.—Fall of Matakitaki Pa, Waikato, to Hongi.

May, 1823.—Fall of Mokoia Pa, Rotorua Lake, to Hongi.

1823, 1828.—Acts passed by the Imperial Parliament extending the jurisdiction of the Courts of justice in New South Wales to all the British subjects in New Zealand.

1824.—Fall of Te Whetumatarau Pa, near East Cape, to Pomare.

1825.—First attempt at colonisation by an expedition under the command of Captain Herd, who bought two islands in the Hauraki Gulf.

Feb., 1825.—Great defeat of Ngati-Whatua at Te Ikaaranganui, Kaipara, by Hongi.

1827.—Destruction of mission-station at Whangaroa by Hongi's forces.

Feb., 1827.—Admiral (then Captain) Dumont D'Urville anchored in Auckland Harbour.

1828.—Hongi died at Whangaroa, from wounds received at Hokianga.

1828.—The "Maquarie," Captain Kent, the first vessel to enter Kawhia.

March, 1829.—Brig "Hawes" captured at Whakatane by Maoris.

1830.—Battle of Taumata-wiwi, near Cambridge.

1830.—Fall of Kaiapohia Pa, Canterbury.

March 6, 1830.—Battle of Kororareka, between two Nga-Puhi tribes.

Dec., 1830.—Death of Tama-i-hara-nui at the hands of Te Rauparaha's people. He was brought from Port Cooper by Captain Steward, brig "Elizabeth."

1831.—Tory Channel whaling-station established.

1831.—Application of thirteen chiefs for the protection of King William the Fourth.

Dec., 1831.—Pukerangiora Pa, Waitara, fell to Waikato.

Feb., 1832.—Repulse of Waikato at Nga-motu Pa, under Dicky Barrett.

1833.—Mr. Busby appointed British Resident, to live at the Bay of Islands.

1834.—Battle of Haowhenua and Pakakutu, near Otaki.

1834.—Bishop Williams's first visit to East Cape.

April 29, 1834.—"Harriet" wrecked at Cape Egmont.

Oct. 1, 1834.—H.M.S. "Alligator" shelled and took Waimate Pa, near Opunake. First occasion of H.M. troops being employed in New Zealand.

1835.—Declaration of independence of the whole of New Zealand as one nation, with the title of "The United Tribes of New Zealand."

Nov. and Dec., 1835.—Ngati-Awa tribes migrated to and conquered the Chatham Islands.

March 28, 1836.—Maketu Pa, Bay of Plenty, fell to Waikato.

May 9, 1836.—Te Tumu Pa, Bay of Plenty, fell to Te Arawa.

Aug. 5, 1836.—Battle at Matai-puku, Rotorua—Waikato beat Te Arawa.

Oct.. 1836.—Siege of Toka-a-kuku, Te Kaha, Bay of Plenty.

1838.—The Roman Catholic Bishop Pompallier, with several priests, arrived at Hokianga.

Sept. 1, 1838.—H.M.S. "Pelorus" discovers Pelorus Sound.

April, 1839.—Taking of the French whaler "Jean Bart" at Chatham Islands by Maoris.

May 12, 1839.—Departure of the preliminary expedition of the New Zealand Company from England.

June, 1839.—Issue of Letters Patent authorising the Governor of New South Wales to include within the limits of that colony any territory that might be acquired in sovereignty by Her Majesty in New Zealand.

Sept. 16, 1839.—First body of New Zealand Company's emigrants sailed from Gravesend.

Sept. 20, 1839.—Arrival in Port Nicholson of the preliminary expedition of the New Zealand Company under Colonel Wakefield.

Oct. 16, 1839.—Battle of Te Kuititanga, Otaki.

Jan. 20, 1840.—First steamer arrived in New Zealand.

Jan. 22, 1840.—Arrival of first body of immigrants at Port Nicholson.

Jan. 29, 1840.—Captain Hobson, R.N., arrived at the Bay of Islands. On the following day (Jan. 30) he hoisted the Union flag, and read the commission, under the Great Seal of the United Kingdom, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the Islands of

New Zealand; also his own commission as Lieutenant-Governor over territory that might be acquired in sovereignty.

Feb. 5, 1840.—Treaty of Waitangi signed.

May 21, 1840.—Date of Proclamations of sovereignty over the Islands of New Zealand.

June 17, 1840.—The Queen's sovereignty over the Middle Island formally proclaimed at Cloudy Bay, by Major Bunbury, H.M. 80th Regiment, and Captain Nias, R.N.

Aug. 11, 1840.—The British flag hoisted at Akaroa by Captain Stanley, R.N., and British authority established. The French frigate "L'Aube" arrived there on the 13th August, and the vessel "Comte de Paris," with fifty-seven immigrants, on the 16th August, in order to establish a French colony.

Sept. 18, 1840.—The British flag hoisted at Auckland. The Lieutenant-Governor's residence established there.

1840.—Formation of Wanganui settlement under the name of "Petre."

Feb. 12, 1841.—Issue of charter of incorporation to the New Zealand Company.

Mar. 31, 1841.—Arrival of first New Plymouth settlers.

May 3, 1841.—New Zealand proclaimed to be independent of New South Wales.

Oct., 1841.—Selection of site for settlement at Nelson.

Feb. 1, 1842.—Settlement founded at Nelson.

May 29, 1842.—Arrival of Bishop Selwyn in the colony.

Sept. 10, 1842.—Death of Governor Hobson. Lieutenant Shortland, R.N., Colonial Secretary, became Acting-Governor until the arrival of Captain Fitzroy.

June, 1843.—Affray with Natives at the Wairau, and massacre by Rangihaeata of Captain Wakefield, R.N., agent at Nelson of the New Zealand Company, and others, who had surrendered.

Dec. 1, 1843.—Arrival of Captain Fitzroy, R.N., as Governor.

July 8, 1844.—The Royal flagstaff at Kororareka cut down by Heke.

March 10, 1845.—Attack on and destruction of Town of Kororareka by Heke.

Oct. 1, 1845.—Receipt of despatch notifying recall of Governor Fitzroy.

Nov. 14, 1845.—Arrival of Captain Grey, as Lieutenant-Governor of the colony, from South Australia.

Jan. 11, 1846.—Capture of pa at Ruapekapeka, Bay of Islands, and termination of Heke's war.

Mar. 3, 1846.—Commencement of Native hostilities in the Hutt Valley, near Wellington.

May 16, 1846.—Attack by Natives on a military outpost in the Hutt Valley.

July 23, 1846.—Capture of Te Rauparaha at Porirua, near Wellington. He was detained for a year as a prisoner on board a ship of war.

Aug. 28, 1846.—The New Zealand Government Act passed by the Imperial Parliament, under which a charter was issued dividing the colony into two provinces, and granting representative institutions.

May 19, 1847.—Attack by Natives on settlement of Wanganui.

Jan. 1, 1848.—Captain Grey sworn in as Governor-in-Chief over the Islands of New Zealand, also as Governor of the Province of New Ulster and Governor of the Province of New Munster.

Jan. 3, 1848.—Major-General Pitt appointed by Governor Grey to be Lieutenant-Governor of the Province of New Ulster.

Jan. 28, 1848.—Assumption by Lieutenant-Governor E. J. Eyre, at Wellington, of the administration of the Government of the Province of New Munster.

Feb. 21, 1848.—Peace ratified at Wanganui.

Mar. 7, 1848.—Suspension by Imperial statute of that part of the New Zealand Government Act which had conferred representative institutions.

Mar., 1848.—Otago founded by a Scotch company under the auspices of the Free Church of Scotland.

Oct., 1848.—Severe earthquake at Wellington.

July, 1850.—Surrender of the New Zealand Company's charter, all its interests in the colony reverting to the Imperial Government.

Dec., 1850.—Canterbury founded by the Canterbury Association in connection with the Church of England.

Jan. 8, 1851.—Death of Major-General Pitt, Lieutenant-Governor of the Province of New Ulster.

April 14, 1851.—Lieutenant-Colonel Wynyard appointed Lieutenant-Governor of the Province of New Ulster.

1852.—Discovery of gold at Coromandel by Mr. Charles Ring.

June 30, 1852.—The Constitution Act passed by the Imperial Parliament, granting representative institutions to the colony, and subdividing it into six provinces.

Jan., 1853.—Promulgation of the Constitution Act.

Mar. 7, 1853.—Assumption by Sir George Grey, K.C.B., of the duties of Governor of the colony, in terms of the appointment after the passing of the New Zealand Constitution Act, and cessation of the duties of the Lieutenant-Governors of New Ulster and New Munster.

Dec. 31, 1853.—Departure of Governor Sir George Grey.

Jan. 3, 1854.—Lieutenant-Colonel Wynyard assumed the administration of the Government.

May 27, 1854.—Opening at Auckland of the first session of the General Assembly by Lieutenant-Colonel Wynyard, Administrator of the Government.

Jan., 1855.—Very severe earthquake on each side of Cook Strait.

Sept. 6, 1855.—Arrival of Governor Colonel T. Gore Browne, C.B.

Nov. 12, 1855.—First members elected to House of Representatives under system of Responsible Government.

Aug. 8, 1855.—General Assembly opened.

Sept. 15, 1855.—General Assembly prorogued.

May 7, 1856.—Appointment of the first Ministry under the system of Responsible Government, under Mr. Sewell, Colonial Secretary.

May 14, 1856.—Defeat of Mr. Sewell's Ministry.

May 20, 1856.—Appointment of a Ministry under presidency of Mr. W. Fox, as Attorney-General.

May 28, 1856.—Defeat of Mr. Fox's Ministry, by a majority of one, on a direct vote of want of confidence.

June 2, 1856.—Appointment of a Ministry under the presidency of Mr. E. W. Stafford.

1857.—First payable goldfield in the colony opened at Collingwood, in the Nelson Province.

Aug. 21, 1858.—New Provinces Act passed.

Nov. 1, 1858.—Establishment of the Province of Hawke's Bay.

March, 1859.—Te Teira offered land at Waitara for sale to the Government.

Nov. 1, 1859.—Establishment of the Province of Marlborough.

Mar., 1860.—Commencement of hostilities against Wiremu Kingi te Rangitake at Waitara.

Mar. 18, 1860.—Capture of Maori pa at Waitara.

Mar. 28, 1860.—Engagement at Waireka.

June 27, 1860.—Engagement of Puketakauere at Waitara.

Nov. 6, 1860.—Defeat at Mahoetahi, with heavy loss, of a force of Waikato Natives, who had crossed the Waitara River to join Wiremu Kingi.

Dec. 31, 1860.—Capture of the Matarikoriko Pa, and defeat of a large body of Waikato Natives.

Jan. 23, 1861.—The Natives made a determined attack on the redoubt at Huirangi occupied by Imperial troops, and were repulsed with heavy loss.

April 1, 1861.—Establishment of Province of Southland.

May 21, 1861.—A truce agreed to.

May, 1861.—Discovery of gold at Gabriel's Gully, Otago.

July 5, 1861.—Defeat of Mr. Stafford's Ministry, by a majority of one, on a vote of want of confidence.

July 12, 1861.—Appointment of a Ministry under the premiership of Mr. Fox.

July 29, 1861.—Incorporation of the Bank of New Zealand.

Sept. 26, 1861.—Arrival of Sir George Grey, K.C.B., at Auckland, from the Cape Colony, to succeed Governor Gore Browne. Sir George Grey was sworn in as Governor on the 3rd October.

Oct. 2, 1861.—Departure of Governor Gore Browne.

June 28, 1862.—Coromandel proclaimed a goldfield.

July 28, 1862.—Defeat of Mr. Fox's Ministry by the casting-vote of the Speaker, on a proposed resolution in favour of placing the ordinary conduct of Native affairs under the administration of the Responsible Ministers.

Aug. 6, 1862.—Appointment of a Ministry under the leadership of Mr. Alfred Domett.

Feb. 7, 1863.—Wreck of H.M.S. "Orpheus" on Manukau Bar; 181 lives lost.

Feb. 26, 1863.—Definite relinquishment by the Imperial Government of control over administration of Native affairs.

May 4, 1863.—Treacherous assault near Tataraimaka by Natives on a military escort. Murder of Lieutenant Tragett, Dr. Hope, and five soldiers of the 57th Regiment.

June 4, 1863.—Defeat of Natives at Katikara, by a force under Lieut.-General Cameron.

July 17, 1863.—Action at Koheroa, in the Auckland Province. Commencement of the Waikato War.

Oct. 27, 1863.—Resignation of the Domett Ministry, in consequence of difficulties experienced in connection with arrangements for finding a fitting representative of the Government in the Legislative Council.

Oct. 30, 1863.—Appointment of the Ministry formed by Mr. Fox, under the premiership of Mr. F. Whitaker.

Nov., 1863.—Acceptance by the General Assembly of colonial responsibility in Native affairs.

Nov. 20, 1863.—Battle of Rangiriri. Defeat of Natives and unconditional surrender of 183.

Dec. 1, 1863.—The first railway in New Zealand opened for traffic by W. S. Moorhouse, Superintendent of Canterbury. The line was from Christchurch to Ferrymead Junction.

Dec. 3, 1863.—The New Zealand Settlements Act passed, giving the Governor power to confiscate the lands of insurgent Natives.

Dec. 8, 1863.—Occupation of Ngaruawahia. The British flag hoisted on the Maori king's flagstaff.

Feb. 11, 1864.—Engagement with Natives on Mangapiko River. Major (then Captain) Heaphy, of the New Zealand Forces, won the Victoria Cross for distinguished bravery on this occasion.

Feb. 22, 1864.—Defeat of Natives at Rangiaohia.

April 2, 1864.—Attack on and capture of pa at Orakau, Waikato.

April 21, 1864.—Engagement near Maketu, Bay of Plenty. Tribes of the Rawhiti defeated by Arawa Natives, under Captain McDonnell.

April 29, 1864.—Assault on Gate Pa, Tauranga, Bay of Plenty, and repulse of large British force by the Maoris. The pa was abandoned by the Natives during the following night.

April 30, 1864.—Repulse of attack by rebel Hauhau Natives on redoubt at Sentry Hill, Taranaki.

May 14, 1864.—Battle of Moutoa, an island in the Wanganui River, between friendly and rebel Hauhau Natives. Complete defeat of rebels.

June 21, 1864.—Engagement at Te Ranga, near Tauranga, by Lieut.-Colonel Greer, 68th Regiment. Severe defeat of the Natives.

1864.—Discovery of gold on the west coast of the Middle Island.

Sept. 10, 1864.—Escape of Maori prisoners from Kawau.

Oct. 3, 1864.—Wellington chosen as the seat of Government.

Nov. 24, 1864.—Appointment of a Ministry under the premiership of Mr. F. A. Weld, the Whitaker-Fox Ministry having resigned during the recess.

Dec. 17, 1864.—Confiscation of Native lands in Waikato by Sir George Grey.

1865.—Wreck of s.s. "White Swan" on East Coast (with loss of many public records, in transit from Auckland).

Feb., 1865.—Removal of the seat of Government to Wellington.

March 2, 1865.—Barbarous murder of the Rev. Mr. Volkner, a Church of England missionary, at Opotiki, by Hauhau fanatics, under Kereopa.

June 8, 1865.—Submission of the Maori Chief Wiremu Tamihana te Waharoa (William Thompson).

June 17, 1865.—Murder of Mr. Fulloon, a Government officer, and his companions, at Whakatane, by Hauhau fanatics.

July 22, 1865.—Capture of the Wereroa Pa, near Wanganui.

Aug. 2, 1865.—Assault and capture of the Pa Kairomiromi, at Waiapu, by Colonial Forces under Captain Fraser, and Native Contingent under the chief Te Mokena. Eighty-seven rebels killed.

Sept. 2, 1865.—Proclamation of peace issued by Governor Sir George Grey, announcing that the war, which commenced at Oakura, was at an end.

Sept. 30, 1865.—Murder by Hauhaus, at Kakaramea, of Mr. Broughton, when sent as friendly messenger to them by Brigadier-General Waddy.

Oct. 12, 1865.—Resignation of Mr. Weld's Ministry, on account of a resolution adverse to the Government policy, having been defeated only by the casting-vote of the Speaker.

Oct. 16, 1865.—Appointment of a Ministry under the premiership of Mr. E. W. Stafford.

Dec. 25, 1865.—Defeat of rebel Natives at Wairoa, Hawke's Bay, by Colonial Forces and Native Contingent.

Jan. 4, 1866.—Defeat of Natives at Okotuku Pa, on the west coast of the North Island, by force under Major-General Chute.

Jan. 7, 1866.—Assault on and capture of Putahi Pa, by force under Major-General Chute.

Jan. 13, 1866.—Assault on and capture of Otapawa Pa, by force under Major-General Chute.

Jan. 17, 1866, to Jan. 25, 1866.—Period of Major-General Chute's march through the bush to New Plymouth.

Jan., 1866.—Escape of a large number of Native prisoners from the hulk at Wellington; many were drowned in trying to swim ashore.

March 29, 1866.—Submission of the rebel chiefs Te Heuheu and Herekiekie, of Taupo district.

Mar., 1866.—A detachment of Maori prisoners sent to the Chatham Islands.

June 15, 1866.—Commencement of Panama steam mail-service.

Aug. 26, 1866.—The Cook Strait submarine telegraph cable laid.

Oct. 2, 1866.—Engagement with rebel Natives at Pungarehu, West Coast, by Colonial Forces, under Major McDonnell.

Oct. 8, 1866.—First Act passed to impose stamp duties.

Oct. 12, 1866.—Defeats of rebel Natives at Omaranui and at Petane, Hawke's Bay, by Colonial Forces.

Oct. 10, 1867.—An Act passed to establish an institute for the promotion of science and art in the colony.

Oct. 10, 1867.—An Act passed for the division of the colony into four Maori electorates, and the admission of four Maori members to the House of Representatives.

Jan., 1868.—Establishment of the County of Westland.

Feb. 5, 1868.—Arrival of Governor Sir George F. Bowen, G.C.M.G.

July 4, 1868.—Seizure by Maori prisoners, under the leadership of Te Kooti, of the schooner "Rifleman," and their escape from the Chatham Islands.

July 12, 1868.—Night attack by Natives on redoubt at Turuturu Mokai. Sub-Inspector Ross and seven Europeans killed. Natives driven off by the arrival of a force under Major Von Tempsky.

Aug. 8, 1868.—Pursuit by Lieut.-Colonel Whitmore of escaped Chatham Island prisoners, and indecisive engagement in the gorge of the Ruake Ture.

Aug. 21, 1868.—Attack on Ngutu-o-te-Manu by force under Lieut.-Colonel McDonnell. Defeat of Natives; four Europeans killed and eight wounded.

Sept. 7, 1868.—Engagement in bush at Ngutu-o-te-Manu. Major Von Tempsky, Captains Buck and Palmer, Lieutenants Hunter and Hastings, and fourteen men killed.

Oct. 19, 1868.—Bishop Selwyn left New Zealand.

Nov. 7, 1868.—Attack on Moturoa. Repulse of Colonial Forces, with severe loss.

Nov. 10, 1868.—Massacre of thirty-two Europeans at Poverty Bay by Te Kooti's band of Natives, who had escaped from the Chatham Islands.

Nov. 24, 1868, Dec. 3, 1868, Dec. 5, 1868.—Engagements between friendly Natives and rebels under Te Kooti, at Patutahi, Poverty Bay district.

Jan. 5, 1869.—Assault on and capture of Ngatapa Pa, Poverty Bay district, after a siege of six days, by the Colonial Forces of Europeans and friendly Natives under Colonel Whitmore and Major Ropata. Dispersion and pursuit of Te Kooti's band. More than 136 rebel Natives were killed.

Feb. 13, 1869.—Treacherous murder of the Rev. John Whitely and seven other Europeans at the White Cliffs, Taranaki.

Feb. 18, 1869.—Attack by rebel Natives on a foraging-party at Karaka Flat; one sergeant and six men killed.

Mar. 3, 1869.—Termination of Panama mail-service.

Mar. 13, 1869.—Attack on and defeat of Titokowaru's force at Otauto.

April 10, 1869.—Native pa at Mohaka taken by Te Kooti, who killed forty friendly Natives and several Europeans in the neighbourhood.

April 12, 1869.—First arrival of H.R.H. the Duke of Edinburgh in Wellington, in H.M.S. "Galatea."

May 6, 1869.—Surprise and capture of Ahikereru and Oamaru Teangi Pas, Waiwera country. Defeat of Te Kooti.

June 13, 1869.—Surrender to Major Noake and Mr. Booth, R.M., of the chief Tairua, with 122 men, women, and children of the PakakoheTribe, near Wanganui.

June 24, 1869.—Defeat of Mr. Stafford's Ministry on a want-of-confidence motion.

June 28, 1869.—Appointment of a Ministry under the premiership of Mr. W. Fox.

Sept. 3, 1869.—An Act passed providing Government life insurance and annuities.

Oct., 1869.—Seventy-four prisoners from the bands of Te Kooti and Titokowaru sentenced to death, after trial, for treason. The sentences of seventy-three were commuted to penal servitude for various terms.

Oct. 4, 1869.—Pourere Pa stormed and taken by Lieut.-Colonel McDonnell, with a mixed force of Europeans and Natives.

Jan., 1870.—Three hundred friendly Natives under Topia, and three hundred under Major Keepa (known as Kemp), started up the Wanganui River in pursuit of Te Kooti, who retreated into the Urewera country.

Jan. 25, 1870.—Capture of Tapapa Pa, occupied by Te Kooti.

Feb. 24, 1870.—The last detachment of the Imperial troops left the colony.

Mar. 25, 1870.—Major Keepa, with Native force, captured the position held by Te Kooti at Maraetahi, in Urewera country; nineteen rebels killed and seventy-three of Te Kooti's men taken prisoners. Te Kooti escaped with twenty followers.

Mar. 26, 1870.—Commencement of San Francisco mail-service.

June 28, 1870.—Enunciation in the House of Representatives of the public-works policy by the Colonial Treasurer, Mr. Vogel.

July, 1870.—Thirty prisoners of Te Kooti's band sentenced to death. The sentences were commuted to penal servitude.

Aug. 27, 1870.—Arrival in Wellington of H.R.H. the Duke of Edinburgh in H.M.S. "Galatea." Second visit.

Sept. 12, 1870.—An Act passed to establish the New Zealand University.

Sep. 12, 1870.—The Land Transfer Act passed, to simplify the title to land and dealings with real estates.

Oct. 6, 1870.—Southland Province reunited with Otago.

Dec. 5, 1870.—Honiani te Puni, the chief of the Ngatiawas, a staunch friend of the Europeans, died at Pitone, near Wellington, aged ninety years.

Mar., 1871.—Commencement of railway-construction under the public-works policy.

Aug. 4, 1871.—Death of Tamati Waka Nene, the great Ngapuhi chief and friend of the Europeans.

Nov., 1871.—Capture of the notorious rebel Kereopa, the murderer of the Rev. Mr. Volkner, by the Ngatiporous.

Jan. 5, 1872.—Execution of Kereopa at Napier.

Jan., 1872.—Remission of sentences on fifty-eight Native prisoners then undergoing imprisonment for rebellion.

Feb. 22, 1872.—Visit of William King, the Maori chief of Waitara, to New Plymouth, and resumption of amicable relations with the Europeans.

May 9, 1872.—A general thanksgiving-day for the recovery of H.R.H. the Prince of Wales.

Sept. 6, 1872.—Defeat and resignation of Mr. Fox's Ministry.

Sept. 10, 1872.—Appointment of a Ministry under the premiership of the Hon. E. W. Stafford.

Oct. 4, 1872.—Defeat of the Stafford Ministry on a vote of want of confidence moved by Mr. Vogel.

Oct. 11, 1872.—Appointment of a Ministry under the premiership of the Hon. G. M. Waterhouse, M.L.C.

Oct. 11, 1872.—First appointment of Maori chiefs (two) to be members of the Legislative Council.

Oct. 25, 1872.—The Public Trust Office Act passed.

Jan., 1873.—Establishment of the New Zealand Shipping Company.

Mar. 3, 1873.—The Hon. W. Fox appointed Premier on the resignation of that office by the Hon. G. M. Waterhouse, the other members of the Ministry being confirmed in their offices.

Mar. 19, 1873.—Departure of Governor Sir G. F. Bowen, G.C.M.G.

Mar. 21, 1873.—Assumption of the Government by Sir G. A. Arney, Chief Justice, as Administrator.

April 8, 1873.—Resignation of the premiership by the Hon. W. Fox, on the return of the Hon. J. Vogel, C.M.G., from Australia. Appointment of Mr. Vogel as Premier, the other Ministers being confirmed in their offices.

June 14, 1873.—Arrival of Governor Sir J. Fergusson, P.C.

Aug. 22, 1874.—The Imprisonment for Debt Abolition Act passed.

Nov. 27, 1874.—Sir James Fergusson left New Zealand.

Dec. 3, 1874.—Arrival of Governor the Marquis of Normanby, P.C.

1874.—31,774 immigrants were introduced this year under the immigration and public-works policy.

Jan. 3, 1875.—Visit of Sir Donald McLean to the Maori king; resumption of amicable relations.

July 6, 1875.—Resignation of the Ministry, in consequence of the absence of Sir J. Vogel, K.C.M.G., in England, and his being unable to attend the session of Parliament. Reconstitution thereof, under the premiership of the Hon. Dr. Pollen, M.L.C.

July, 1875.—Establishment of the Union Steam Shipping Company of New Zealand.

1875.—18,324 immigrants were introduced this year under the immigration and public-works policy.

Oct. 12, 1875.—The Abolition of Provinces Act passed.

Feb. 15, 1876.—Resignation of the Hon. Dr. Pollen's Ministry, and reconstitution under the premiership of Sir J. Vogel, K.C.M.G.

Feb. 18, 1876.—Completion of the work of laying the telegraph cable between New Zealand and New South Wales.

June, 1876.—Death of Dr. Isaac Earl Featherston, while acting as Agent-General for the colony in England. He was the first to hold that office, and had previously been Superintendent of the Province of Wellington from the time of the first establishment of provincial representative institutions.

Sept. 1, 1876.—Resignation of Sir J. Vogel's Ministry in view of the appointment of Sir J. Vogel as Agent-General. Formation of a Ministry under the premiership of Major Atkinson.

Sept. 13, 1876.—Resignation of Major Atkinson's Ministry in consequence of doubts being entertained as to the constitutional position thereof. Reconstruction of the Ministry under the premiership of Major Atkinson.

Nov. 1, 1876.—"The Abolition of Provinces Act, 1875," came into full operation. Complete abolition of provincial institutions. The colony subdivided into counties and municipal boroughs.

Oct. 8, 1877.—Defeat of the Atkinson Ministry on a vote of want of confidence moved by Mr. Larnach.

Oct. 15, 1877.—Appointment of a Ministry under the premiership of Sir George Grey, K.C.B.

Nov. 29, 1877.—The Education Act, providing for the free and compulsory education of children, passed.

April 11, 1878.—Bishop Selwyn died, in England.

Oct. 29, 1878.—Sir George Grey's first land-tax passed.

Feb. 29, 1879.—Departure of Governor the Marquis of Normanby, P.C.

Mar., 1879.—Removal of surveyors from the Waimate Plains by Natives acting under Te Whiti's orders.

Mar. 27, 1879.—Arrival of Governor Sir Hercules G. R. Robinson, G.C.M.G.

May 25, 1879.—The Natives from Parihaka, by order of Te Whiti, began ploughing up lands occupied by Europeans.

June, 1879.—Arrest and imprisonment of 180 of these Natives for causing disturbances.

July 29, 1879.—Defeat of the Grey Ministry on an amendment to the Address in Reply, moved by Sir William Fox, followed by a dissolution of Parliament.

Oct. 3, 1879.—Defeat and subsequent resignation of Sir George Grey's Ministry.

Oct. 8, 1879.—Appointment of a Ministry under the premiership of the Hon. John Hall.

Dec. 19, 1879.—An Act passed to assess property for the purpose of taxation.

Dec. 19, 1879.—The Triennial Parliament Act passed.

Dec. 19, 1879.—An Act passed to qualify every resident male of twenty-one years of age and upwards to vote.

June, 1880.—First portion of the Parihaka Maori prisoners released by the Government.

July 9, 1880.—Bounty Island taken possession of by Captain George Palmer, H.M.S. "Rosario."

Sept. 8, 1880.—Departure of Governor Sir Hercules G. R. Robinson, G.C.M.G.

Oct. 1880.—Release of the last portion of the Parihaka Maori prisoners.

Oct. 26, 1880.—Sir Francis Dillon Bell appointed Agent-General.

Nov. 29, 1880.—Arrival of Governor Sir A. H. Gordon, G.C.M.G.

April 29, 1881.—"Tararua," steamer, wrecked; 130 lives lost.

June 26, 1881.—Severe earthquakes in Wellington.

Nov. 5, 1881.—March of force of Constabulary and Volunteers on Parihaka, and arrest of Te Whiti and Tohu, without bloodshed.

Feb. 15, 1882.—First shipment of frozen meat made from Port Chalmers. (See Year-book, 1893, p. 192.)

April 21, 1882.—Resignation (during the recess) of the Hon. J. Hall's Ministry, and its reconstruction under the premiership of the Hon. F. Whitaker, M.L.C.

June 23, 1882.—Departure of Governor Sir A. H. Gordon.

June 24, 1882.—Assumption of the Government by Sir J. Prendergast, Chief Justice.

Jan. 20, 1883.—Arrival of Governor Sir W. F. D. Jervois, G.C.M.G., C.B.

Jan. 26, 1883.—A direct line of steam-communication between England and New Zealand inaugurated by the New Zealand Shipping Company.

Feb. 13, 1883.—Proclamation of amnesty to Maori political offenders.

Feb. 19, 1883.—Liberation of Te Whiti and Tohu.

Sept. 25, 1883.—Resignation of the office of Premier and his seat in the Ministry by the Hon. F. Whitaker, and the appointment of the Hon. Major H.

A. Atkinson to be Premier, the members of Mr. Whitaker's Ministry being confirmed in their offices.

June 11, 1884.—Defeat of Major Atkinson's Government.

June 27, 1884.—Dissolution of the General Assembly.

Aug. 16, 1884.—Resignation of Major Atkinson's Ministry in consequence of the result of the general election. Formation of a Ministry under the premiership of Mr. Robert Stout.

Aug. 20, 1884.—Defeat of Mr. Stout's Ministry by an amendment, expressive of want of confidence, to the Address in Reply being carried.

Aug. 28, 1884.—Appointment of a Ministry under the premiership of Major Atkinson.

Aug. 29, 1884.—Defeat of Major Atkinson's Ministry on a vote of want of confidence.

Sept. 3, 1884.—Appointment of a Ministry under the premiership of Mr. Robert Stout.

Nov. 8, 1884.—An Act passed to enable certain loans of the New Zealand Government to be converted into inscribed stock and the accrued sinking funds released.

Aug. 1, 1885.—The New Zealand Industrial Exhibition opened at Wellington.

June 10, 1886.—Volcanic eruptions at Tarawera, and destruction of the famed Pink and White Terraces; 101 lives lost.

May 28, 1887.—Defeat of Sir Robert Stout's Ministry.

July 15, 1887.—Dissolution of the General Assembly, after prorogation, on the 10th June.

July 21, 1887.—A Proclamation issued declaring the Kermadec Islands to be annexed to and form part of the Colony of New Zealand.

Aug. 17, 1887.—Kermadec Group annexed to New Zealand. Flag hoisted and proclamation read at Sunday Island.

Oct. 8, 1887.—Appointment of a Ministry under the premiership of Major H. A. Atkinson, Sir Robert Stout's Ministry having resigned in consequence of the result of the election.

Dec. 19, 1887.—An Act passed to reduce the number of members of the House of Representatives, after the expiration of the General Assembly then sitting, to seventy-four, including four Maori representatives.

Dec. 23, 1887.—The Australian Naval Defence Act, being an Act to provide for the establishment of an additional naval force on the Australian station, at the joint charge of the Imperial and the several Colonial Governments, was passed by the New Zealand Legislature.

Oct. 27, 1888.—Formal Proclamation of British Protectorate of Cook group of islands, by Captain Bourke, R.N., of H.M.S. "Hyacinth."

Mar. 22, 1889.—Departure of Governor Sir W. F. D. Jervois, G.C.M.G., C.B., from the colony.

Mar. 23, 1889.—Assumption of the Government by Sir James Prendergast.

May 2, 1889.—Arrival of the Earl of Onslow, G.C.M.G.

Sept. 2, 1889.—Electors prohibited by statute from voting in respect of more than one electorate at any election for the House of Representatives.

Nov. 26, 1889.—Opening of South Seas Exhibition, Dunedin.

Dec. 5, 1890.—First election of members of the House of Representatives under a practical manhood suffrage, and on the one-man-one-vote principle.

Jan. 24, 1891.—Notification by Governor of acceptation of resignation (during the recess) of the Hon. Sir H. A. Atkinson's Ministry. Appointment of a Ministry under the premiership of the Hon. John Ballance.

April 22, 1891.—Proclamation by Governor of New Zealand to inhabitants at Rarotonga of appointment of British Resident for the Protectorate of the Cook Islands.

May 25, 1891.—Adhesion of Australia to Postal Union.

Aug. 19, 1891.—Labour-laws: Passing of Employers' Liability Act 1882 Amendment Act.

Aug. 29, 1891.—Labour-laws: Passing of Truck Act, to prohibit payment of wages in goods or otherwise than in money.

Sept. 8, 1891.—Passing of Land and Income Assessment Act for purposes of taxation, and repeal of property-tax.

Sept. 21, 1891.—Labour-laws: Passing of an Act for supervising and regulating of factories and workrooms. [Repealed by Act of 1894.]

Jan. 19, 1892.—Electoral districts of the colony based on population as ascertained by the results of the census of 1891 proclaimed.

Feb. 2, 1892.—Departure of Governor the Earl of Onslow.

Feb. 25, 1892.—Assumption of the Government by Sir James Prendergast, Chief Justice.

June 7, 1892.—Arrival of Governor the Earl of Glasgow, G.C.M.G.

June 28, 1892.—Death of Sir H. A. Atkinson, K.C.M.G., Speaker of the Legislative Council, and previously four times Premier.

Oct. 1, 1892.—Labour-laws: Passing of Contractors' and Workmen's Lien Act.

October 8, 1892.—Passing of Dairy Industry Act. [Repealed by Act of 1894.]

Oct. 11, 1892.—Passing of first Land-tax and Income-tax Act on the basis of the Assessment Act of previous year.

Oct. 11, 1892.—"Land Act, 1892": Lease in Perpetuity without revaluation system introduced: occupation with right of purchase: optional method of selection: small farms associations.

Oct. 8, 1892.—"Land for Settlements Act, 1892," authorising purchase of lands from individuals for purposes of subdivision. [Repealed by Act of 1894. See *post.*]

April 19, 1893.—Cheviot Estate taken over by Government under the Land and Income Assessment Act.

April 27, 1893.—Death of Hon. John Ballance, Premier of New Zealand.

May 1, 1893.—Resignation of the Ministry in consequence of the death of the Hon. John Ballance, and appointment of a new Ministry under the premiership of the Hon. R. J. Seddon.

June 23, 1893.—Death of Sir William Fox, K.C.M.G.; four times Premier of New Zealand.

Sept. 2, 1893.—Passing of Bank-note Issue Act, to make bank-notes a first charge on assets and to enable the Government to declare them to be a legal tender, &c.

Sept. 8, 1893.—The Legislative Council of New Zealand passed, by a majority of two, the Bill conferring the franchise on women.

Sept. 14, 1893.—Banks and Bankers Act Amendment Act passed, to permit of increase of capital by issue of new shares.

Sept. 19, 1893.—"The Electoral Act, 1893," extending franchise to women.

Oct. 2, 1893.—Alcoholic Liquors Sale Control Act passed: New licenses to be granted subject to the votes of the electors: reduction or abolition of licenses if desired.

Oct. 6, 1893.—Passing of "Criminal Code Act, 1893."

Oct. 6, 1893.—Labour-laws: Passing of "Workmen's Wages Act, 1893."

Oct. 6, 1893.—Native Land Purchase and Acquisition Act.

Oct. 20, 1893.—Sir James Prendergast appointed temporarily Deputy of the Governor.

Nov. 28, 1893.—A general election took place, being the first occasion on which women exercised the franchise.

Dec. 28, 1893.—Death of Right Rev. Dr. Henry John Chitty Harper, formerly Bishop of Christchurch and Primate of New Zealand.

Mar. 19, 1894.—Sir James Prendergast appointed temporarily Deputy of the Governor.

June 30, 1894.—Passing of Act to extend operation of Bank-note Issue Act, and another Act to control the transfer of bank shares.

June 30, 1894.—"Bank of New Zealand Share Guarantee Act, 1894," to guarantee special issue of shares to amount of £2,000,000, and purchase of Assets Estates Company by Assets Board. [Amended on July 20.]

July 20, 1894.—Passing of an Act to limit number of bank directors and power of shareholders to transfer their shares.

Aug. 21, 1894.—Labour-laws: Passing of Conspiracy Law Amendment.

Aug. 31, 1894.—Labour-laws: Passing of an Act to encourage the formation of industrial unions and associations, and to facilitate the settlement of industrial disputes by conciliation and arbitration.

Oct. 18, 1894.—"New Zealand Consols Act, 1894."

Oct. 18, 1894.—"Government Advances to Settlers Act, 1894," for relief of settlers burdened by high charges of interest, &c.

Oct. 18, 1894.—Passing of "Land for Settlements Act, 1894," authorising acquisition of private lands for purposes of settlement, with compulsory powers, and repealing Act of 1892; also "Lands Improvement and Native Lands Acquisition Act, 1894."

Oct. 18, 1894.—Labour-laws: Passing of "Shops and Shop-assistants Act, 1894," for limiting hours of business in shops.

Oct. 23, 1894.—Passing of "Banking Act, 1894."

Oct. 23, 1894.—Dairy Industry Act, to regulate manufacture of butter and cheese, with inspection and grading for export, and provide for purity of milk.

Oct. 28, 1894.—Wreck of s.s. "Wairarapa" at Great Barrier Island; 135 lives lost.

Mar. 29, 1895.—Death of Right Reverend Andrew Burn Suter, D.D., formerly Bishop of Nelson, and Primate of New Zealand.

May 27, 1895.—Government assumed management of the Midland Railway.

Aug. 3, 1895.—Death of C. W. Richmond, Puisne Judge of Wellington.

Aug. 20, 1895.—Trustees cemeteries authorised to provide for cremation of dead.

Sept. 4, 1895.—"Bank of New Zealand and Banking Act, 1895," providing for writing off paid-up capital with proceeds of first call on reserve liability. Also for new capital and Assets Realisation Board, &c. Also to purchase business of any other bank.

Sept. 20, 1895.—Labour-laws: Passing of an Act to regulate attachment of wages.

Sept. 20, 1895.—Labour-laws: Passing of Servants' Registry Office Act.

Sept. 20, 1895.—"Family Homes Protection Act, 1895," to secure homes for the people and to prevent them from mortgage or sale for debt.

Oct. 18, 1895.—Amended tariff passed.

Oct. 31, 1895.—Bank of New Zealand and Banking Act Amendment Act: Sale of Colonial Bank business to Bank of New Zealand.

Dec. 20, 1895.—Appointment of Sir P. A. Buckley, K.C.M.G., as a Judge of Supreme Court.

Jan. 10, 1896.—Hon. W. P. Reeves appointed Agent-General in London.

Mar. 26, 1896.—Brunner Mine explosion; sixty-seven deaths.

April 12, 1896.—General census of colony taken for Sunday night.

May 18, 1896.—Death of Sir Patrick Buckley, K.C.M.G.

July 11, 1896.—Appointment of Mr. W. B. Edwards as a Judge of the Supreme Court.

July 19, 1896.—Death of Hon. Robert Pharazyn, M.L.C.

Aug. 2, 1896.—Death of James Edward FitzGerald, C.M.G., Controllor and Auditor-General.

Oct. 16, 1896.—Land for Settlements Act amended: Special provision made for disposal of highly improved lands acquired: preference given to landless people: Boards may select applicants, &c.

Oct. 17, 1896.—Alteration of franchise by abolition of non-residential or property qualification.

Oct. 17, 1896.—Government Valuation of Land Act passed.

Dec. 4, 1896.—General election of members of House of Representatives for the new districts as fixed by the Representation Commissioners on basis of Census, 1896.

Feb. 6, 1897.—Departure of the Earl of Glasgow, G.C.M.G.

Feb. 8, 1897—Sir James Prendergast Administrator of Government.

June 22, 1897.—Diamond Jubilee of reign of Her Majesty Queen Victoria. Hon. R. J. Seddon, Premier of New Zealand, called to Privy Council, on occasion of his visit to England with contingent New Zealand Forces.

July 29, 1897.—Wreck of s.s. "Tasmania" at Mahia Peninsula; ten lives lost.

Aug. 10, 1897.—The Earl of Ranfurly assumed office as Governor.

Dec. 22, 1897.—Act to establish at Wellington the Victoria College, in connection with the New Zealand University.

July 15, 1898.—Hon. Sir Francis Dillon Bell, K.C.M.G., C.B., died.

1898.—Death of Sir George Grey, K.C.B.

1898.—Death of Bishop Selwyn, of Melanesia.

Oct. 15, 1898.—The Municipal Franchise Reform Act passed.

1898.—The Divorce Bill passed both Houses. Her Majesty's assent thereto gazetted 13th April, 1899.

Nov. 1, 1898.—An Act to provide for Old-age Pensions passed.

Feb. 10, 1899.—Rev. William Colenso died at Napier.

March 13, 1899.—Sir Julius Vogel, K.C.M.G., died.

April, 1899.—Victoria University College opened in Wellington.

May 25, 1899.—Resignation of Sir James Prendergast, Chief Justice.

June 1, 1899.—"The Divorce Act, 1898" (assented to by Her Majesty the Queen), came into operation.

June 22, 1899.—Sir Robert Stout, K.C.M.G., appointed Chief Justice.

Oct. 19, 1899.—Act passed constituting Labour Day. The second Wednesday in the month of October in each year to be a public holiday.

Oct. 21, 1899.—N.Z. Contingent (the first) consisting of 215 officers and men, left in s.s. "Waiwera" for Algoa Bay to assist the British in the Transvaal war.

Nov. 16, 1899.—General Assembly dissolved.

Dec. 6, 1899.—General Election of Members of House of Representatives.

Jan. 21, 1900.—The second N.Z. Contingent (258 officers and men) left for South Africa in s.s. "Waiwera."

Feb. 5, 1900.—Hon. Thomas Dick died.

Feb. 17, 1900.—The third N.Z. Contingent (264 officers and men) left for South Africa in s.s. "Knight Templar."

March 24 and 31, 1900.—The fourth and fifth Contingents (1,060 officers and men) left for South Africa in s.s.'s "Monowai," "Gymeric," "Waimate," and "Maori."

June 28, 1900.—"Bubonic Plague Prevention Act, 1900," passed.

Aug. 8, 1900.—"Immigration Restriction Act, 1899," assented to by Her Majesty in Council, came into operation.

GENERAL INDEX.

Page
"Accident Insurance Act, 1899" 304
Acclimatisation. (See Year-book, 1894, p. 431.)
Accumulation, Prices and Wages 294
  Development of Banking... 294
Acres and Yield in Corn-crops 351
Acres of Land under Crop 352
Addenda—see back of Half-Title.
Administration of Land-laws, &c. 413
Advances to Settlers 426
  Loans for 426
  Table showing how repaid 430
  Titles eligible 427
  Valuation-fees 429
Agents for the Colonies, Crown 26
Agent-General in London 25
Ages at Death 132
  " Average 132
  Average, of Persons married 125
  Of Prisoners 251
Agricultural College, Lincoln 224
Agricultural Statistics 350
Agriculture and Live Stock 340, 350, 451
  Acreage under Wheat, Oats, &c., in Provincial Districts 351
  Artificial Manures 462
  Barley 360, 456
  Cape Barley and Winter Oats 465
  Cattle 345, 466, 469
  Cereals 351, 455
  Composition of Roots 461
  Consumption of Wheat 357
  Cost of growing Oats 456
  Cost of working a Farm 465
  Dairy Industry, The 470
  Dairy Stock 346, 470
  Fertilisers 462
  Fruit Industry, The 472
  Gardens and Orchards 361
  Grass-seeds 361, 464
  Hops 361
  Horses 347, 466
  Lambing Returns, Averages 345
  Mangolds and Carrots 460
  Maize 359
  Oats 359, 456
  Pigs 348, 471

Agriculture—*continued.* Page
  Potatoes ... 360, 457
  Poultry ... 472
  Rape ... 459
  Root-crops ... 457
  Sheep ... 342, 467
  Tree-planting ... 473
  Turnips ... 360, 458
  Wheat-crop of Australian Colonies ... 357
  Wheat-crop of the World, 1893 and 1897 ... 357
  Wheat for Threshing ... 356
  Wheat held by Farmers, 1899 ... 356
  Wheat, Seed per Acre ... 456
  Wheat, Yield per Acre ... 351, 456
"Aid to Public Works and Land Settlement Act, 1896" ... 389
Alcoholic Liquors, Consumption of, 1894 to 1898 ... 247
Aliens Naturalised ... 121
Alluvial Mining ... 327
Animals (see Live-Stock) ... 340, 466
Annual Pensions paid by Government ... 60
Antipodes Islands ... 6
Apples, Export of ... 472
Appendix—
  Dates of certain Principal Events in the History of New Zealand ... 609
Apprehensions and Summonses ... 245
Area of New Zealand ... 7
  Of North, Middle, Stewart, Chatham, and other Islands ... 7
  Of United Kingdom compared with New Zealand ... 7
Areas of Australasian Colonies ... 6
  Compared with European Countries ... 7
Area under Cultivation in Counties ... 353
Arbor Day, Tree-planting ... 473
Arms, Ordnance, &c. ... 52
Arrests for Drunkenness ... 247
Arrivals and Departures ... 102
  Chinese ... 102
  Departures, how Numbers ascertained ... 102
  Excess of Arrivals over Departures ... 104
Articles on Special Subjects ... 413
Artificial Manures ... 462
Artillery, Naval, Field, and Garrison ... 51
Ascent of Mount Sefton ... 519
Assembly, General ... 28
Assets Realisation Board ... 298, 407
Associations, Special-Settlement ... 422
Assurance, Industrial Life ... 304
Asylums, Benevolent ... 152
  Lunatic ... 152
  Orphan ... 152
Auckland Docks ... 54
  Graving-dock Charges ... 54–57
Auckland Islands ... 6, 14
Auckland Land District—Introductory, Physical Features, Plains, Lakes, Forests, Soils; Rainfall; General Products and Industries; Chief Towns; Crown or Native Lands available for Future Settlement ... 541
Auckland Provincial District, Progress of Eight Years ... 409
Auckland Sailors' Home ... 153
Australasian Railways ... 367
Australasian Stock, Prices of ... 402

Page

- Australian Colonies, Area of ... 6
  - Debt of ... 402
  - Friendly Societies in ... 321
  - Mineral Production of ... 323
  - Railways in ... 367
  - Live-Stock in... 342
  - Oat-crop of ... 359
  - Population ... 101
  - Taxation in ... 394
  - Trade ... 217
  - Wheat-crop of ... 357
- Average Quantity of Milk to 1 lb. Butter... 470
- Average Yield of Butter or Cheese ... 470

- Bachelors and Spinsters in New Zealand ... 123
- Banking, Development in ... 294
- Banking Legislation, Special ... 296
  - "Bank Directors and Shares Transfer Act, 1894" ... 297
  - "Bank-note Issue Act, 1893" ... 296
  - Bank of New Zealand and Banking Acts, 1895 and 1898 ... 297, 298
  - "Bank of New Zealand Guarantee Act, 1894" ... 296
  - "Banks and Bankers Act Amendment Act, 1893" ... 296
  - "Bank Shareholders Act, 1894" ... 297
- Bankruptcy ... 242
  - Petitions, &c., Five Years ... 243
  - Private Deeds of Assignment ... 243
  - Transactions in 1898 ... 242
- Banks of Issue—
  - Advances and Discounts ... 295
  - Assets and Liabilities ... 294
  - Deposits ... 294
    - In all Classes of Banks, Average per Head ... 300
  - Notes in Circulation, &c. ... 294
- Banks—
  - Post-Office Savings ... 299
    - Deposits, Withdrawals, Open Accounts, Amounts to Credit ... 299
    - Securities held ... 299
  - Private Savings ... 300
    - Deposits, Withdrawals ... 300
- Barley, Acreage and Actual Yield of, in Provincial Districts ... 351
  - Yield in Bushels ... 351
  - Export of ... 202
- Beer, Consumption of, per Head, Five Years ... 247
- Beer, Excise Duty on ... 85
- Benevolent Asylums and Charitable Institutions ... 152
- Birth-rates per 1,000 of Population in Australasian Colonies ... 115
  - Decline of, in New Zealand ... 114
- Births ... 114
  - Declining Rate, &c., in Australia, Remarks on ... 154
  - Illegitimate ... 117
  - Illegitimacy in Australasian Colonies ... 117
  - In Australasian Colonies, Proportion of Illegitimate ... 117
  - Legitimation Act ... 119
  - Of Twins ... 117
  - Proportion to Population, 1882–99 ... 114
  - Rates in Australian Colonies ... 115
  - To Marriages, Proportion of ... 114
- Blind, The. (See Year-book, 1899, p. 136.)

Page
Blind, Institution for the ... 238
Boroughs—
  Expenditure of ... 265
  In Colony ... 93, 261
    Auckland, with suburbs ... 94
    Christchurch, with suburbs ... 94
    Dunedin, with suburbs ... 94
    Wellington, with suburbs ... 94
  Indebtedness of ... 267
  Population of ... 93
  Rateable Value of Property in ... 270
  Revenue of ... 265
  Value of Land and Improvements in ... 259
Boundaries and Area of the Colony ... 5
Bounty Island ... 6
Breadstuffs in various Countries and Colonies, Consumption of ... 357
Building Societies ... 301
  Amounts deposited with ... 301
  Income, Assets, Liabilities, Reserve Funds ... 301
Butter and Cheese ... 208, 470
  Export to United Kingdom, Twelve Years ... 208
  Factories and Creameries ... 363
  Grading ... 369, 471
  Industry ... 362

Cadet Corps ... 52
Cadets in Government Service to be Volunteers ... 47
Campbell Islands ... 6
Cancer, Deaths from ... 144
  Decennial Return ... 147
  Increase in ... 145
  Part of Body affected ... 146
  Proportion of Deaths per 10,000 living, 1890–99 ... 145
Canterbury Agricultural College ... 224
Canterbury Land District—Boundaries and Physical Features, Scenery, Climate Internal Communication; Geological Formation; Area, Nature, and Disposition of Lands; Soils; Pasturage and Crops; Stock, Wool, Butter and Cheese, Timber, Fruit; Coal, Building-stones; Fisheries; Manufactories; Libraries and Churches; Educational and other Institutions; Towns ... 586
Canterbury Provincial District: Progress of Eight Years ... 411
Cape Barley and Winter Oats ... 465
Capital City, Population of ... 94
Capitation to Efficient Volunteers and Cadets ... 53
Carrots ... 462
Cattle ... 345, 466
  In Provincial Districts ... 346
Causes of Death ... 133
  At Four Centres ... 130
  Cancer ... 144
  Developmental Diseases ... 149
  Local Diseases ... 149
  Measles ... 138
  Old Age ... 149
  Percentage of Deaths from each ... 133
  Phthisis ... 140
  Typhoid Fever ... 138
  Violence ... 150

Page
Cavalry Volunteers ... 51
Cereals ... 455
Charges, Survey, on Unsurveyed Lands ... 425
Charitable Institutions, Benevolent Asylums and, &c. ... 150
Chatham Islands ... 6, 13, 531
Cheese and Butter ... 203, 470
  Factories, Number of ... 363
Cheviot Estate. (See Year-book, 1895, p. 264.)
Children to a Marriage, Number of ... 114
Chinese—
  Conjugal Condition ... 106
  Immigration and Emigration of ... 105
  Number in Colony ... 89
  Occupations of ... 106
  Poll-tax on ... 105
Churches ... 239
  Attendance at ... 239
  Denominations of ... 240
  In Provincial Districts ... 239
  Schoolhouses and Dwellings used as ... 239
Cities ... 94
Civil Cases ... 242
Civil Establishment at Seat of Government ... 33
"Civil Service Insurance Act, 1893" ... 63
Classification of Lands, &c. ... 420
Climate—
  Temperature in New Zealand, Australia, and other British Possessions 332–335
Clips, Average Wool- ... 467
Clothing, Imported, Value of ... 168
Coal ... 328
  Classes of, in New Zealand ... 480
  Consumption of ... 328
  Export of ... 328
  Found in Colony, Analysis of ... 330
  Import of ... 328
  Output of ... 328
Coal Deposits of New Zealand ... 479
"Coal-mines Act, 1891" ... 320
Colleges and University ... 230
Colonial Office, The ... 25
Colonies, Area of the Australian ... 6
Colonisation of New Zealand ... 3
Colony, Boundaries and Area of the ... 5
  Crown Agents for the ... 26
  Population of the ... 89
  Progress of, Eight Years ... 409
Communication and Transport ... 364
Consols, New Zealand ... 389, 446
"Conspiracy Law Amendment Act, 1894" ... 319
Constitution ... 14
  Government ... 15
Consumption of Beer ... 172, 247
Consumption, Principal Articles of ... 310
Consuls, Foreign (see also Addenda) ... 24
Contingents for South Africa ... 449
Convictions ... 245
  For Drunkenness ... 247
  Summary ... 245

Page
Convictions of Maoris 249
Cook Islands, Description of (see Year-book, 1895, p. 456.)
Cook Strait 10
Corn-crops, Acreage, and Actual Yield of... 351
Cost of Living in New Zealand and in Various Countries 309
    Management of Local Governing Bodies 266
    Railways 406
    Working a Farm in New Zealand 465
Council, Executive, 1843–56 20
Council, Executive, January, 1900 27
    Legislative, Roll of Members of the (see also Addenda) 29
    Successive Speakers of the Legislative 28
Counties, Population of 92
    Land under Cultivation in 353
    Value of Land and Improvements in... 257
Court, Validation 36
Courts, Bankruptcy 242
    Civil Cases, Supreme and District 242
    Divorce and Separation 243
    Magistrates', Civil Cases 242
        Charges for Offences before 245
        Committals 245
        Punishment on Summary Convictions (five years) 247
        Summary Convictions before 246
    Sentences, Supreme and District (five years) 246
    Supreme and District, Convictions 245
Cows, Average Annual Yield of Milk 470
Creameries and Butter Factories 363
Crime, Law and 242
Cross-breeding of Sheep 467
Crown Agents for the Colonies 26
Crown Lands occupied 336
    Mode of acquiring 420
Crown Lands of New Zealand 336, 413
Cultivation. (See also Agriculture.)
    Barley 360, 456
    Cereals, Remarks on 457
    Cost of Working a Farm 465
    Extent of Land in 352
    Fertilisers 462
    Gardens and Orchards 361
    Hops 361
    Land in Sown Grasses in Australasian Colonies 362
        Under Crops in Provincial Districts 352
    Maize 359
    Oats 359, 456
        In Australasian Colonies 359
    Orchards and Gardens 361
    Peas and Beans 360
    Potatoes 360, 457
    Root-crops 457
    Rye 360
    Seeds and Sown Grasses 361, 464
    Tobacco 361
    Turnips 360, 458
    Wheat 356, 455
        In Australasian Colonies 357
Customs Duties, Rates levied 71

- Customs Duties—*continued.* Page
  - Revenue from ... 191
  - Proportion of Taxation in Australasian Colonies derived from, 1898-9 ... 394
- Cyanide Process, The ... 325
- Cyanide Process Gold-extraction Act ... 327

- Dairy Factories ... 363
- Dairy Industry ... 362, 470
  - Government Aid to ... 363
  - Produce, Export of ... 203
  - Stock ... 346, 470
- Dates of Principal Events ... 609
- Deaf and Dumb. (See Year-book, 1899, p. 134.)
- Deaf-mutes, Institution for ... 238
- Death, Average Age at ... 132
  - Causes of ... 133
- Death-rates in various Countries and Colonies, 1890-99 ... 127
  - From Cancer ... 145
  - Congenital Defects ... 135
  - Nervous Diseases ... 135
  - From Phthisis ... 140
  - From Typhoid Fever ... 138
  - In Four Principal Cities ... 130
  - In Principal Cities of Australasia ... 132
- Deaths ... 127
  - At various Age-periods ... 132
  - Inquests on ... 253
  - Number of, in 1899 ... 127
  - Of Infants ... 132
  - Of Infants to every 1,000 Births ... 132
  - Of Publicans, &c. ... 140
  - Violent ... 150
- Debt, General Government (see Public Debt) ... 395
  - Of Local Bodies ... 265, 267
- Deceased Persons' Estates ... 305
  - Duties Payable on ... 88
- Declining Birth-rate, &c., in Australia, Remarks on ... 154
- Defences, Military and Naval—
  - Administration; Artillery, Permanent Militia; Bearer Corps, Volunteers; Cadet Corps, Volunteers; Capitation; Cavalry, Volunteers; Cycle Corps, Volunteers; Engineers, Volunteers; Enrolment, &c.; Expenditure and Maintenance; Field Artillery, Volunteers; Instructors; Militia and Volunteer Districts; Mounted Rifles, Volunteers; Naval Artillery, Volunteers; Ordnance, Arms, &c.; Rifle Corps, Volunteers; Torpedo Corps, Permanent Militia ... 50
- Deferred-payment System, Land taken up on ... 372-375, 421
- Degree of Education ... 220
- Departures, Arrivals and ... 102
- Deposits in Banks ... 294
- Depots for Shipwrecked Mariners ... 53
- Despatch of New Zealand Troops to South Africa ... 449
- Diarrhœal Diseases, Deaths from ... 138
- Digest of the Land-laws ... 419
- Diphtheria, Deaths from ... 138
- Discovery and Early Settlement ... 2
- Discovery of Gold in New Zealand. (See Year-book, 1894, p. 343.)
- Diseases, Various, Deaths from ... 133
- District Court, Civil Cases ... 242
- Districts, Militia and Volunteer ... 50

Page
Divorce, Petitions and Decrees, 1893-1898 ... 244
Divorce and Separation ... 243
  Grounds for ... 243
Docks, Graving, and Patent Slips ... 54
Drainage Board, Revenue, Expenditure, and Loans ... 265
Drunkenness ... 247
  Persons convicted of ... 248
Duties and Functions of Representation Commissions ... 156
Duties on Estates of Deceased Persons ... 88

Early Settlement, Discovery and ... 2
Earnings of the People ... 308
  Wages ... 313-316
Ecclesiastical ... 48
Education (see Public Instruction, also Schools) ... 220
  Public (Government) Schools ... 222
  School of Engineering and Technical Science ... 224
  Technical ... 224
  University, New Zealand ... 230
  Victoria College ... 231
Education Boards, Income and Expenditure of ... 235
Education, Degree of ... 220
  Improvement in ... 220
Egmont, Mount ... 9
Election, General. (See Representation.)
Electoral. (See Representation.)
"Electoral Act, 1893," extends Franchise to Women... 16, 157
"Electoral Act Amendment Act, 1896," abolishes property qualification 16, 157
Electric Telegraph ... 369
Emigration. (See Immigration and Emigration.)
"Employers' Liability Act, 1882" ... 319
Engineering, School of ... 224
Engineers, Volunteers ... 51
Enrolment of Permanent Militia ... 52
Estates of Deceased Persons, Value of ... 305
  Duties Payable on ... 88
Estates offered for Selection under Land for Settlements Act, during Year 1899-00 ... 378
European Population of Colony ... 89
Excise Duty on Beer ... 85
Executive Council, 1843-56 ... 20
  1900 ... inset facing pp. 26, 27
Expenditure, Revenue and ... 380
  Charges of Public Debt ... 399
  General Government ... 380
  Local Bodies ... 265
  On Railways ... 380, 406
  Out of Public Works Fund by General Government ... 405
Exports ... 193
  Butter and Cheese to United Kingdom, for Twelve Years ... 203
  Coal ... 193, 328
  From different Ports ... 204
  From United Kingdom to various Countries and Colonies ... 219
  Frozen Meat ... 201
    Quantity, Eighteen Years ... 201
    Value, Twelve Years ... 197
  Gold, Silver, and other Minerals to 31st December, 1899 ... 322
  Gold, 1899 ... 202

Exports—*continued.* Page
  Grain ... 203
  Home Produce ... 193
  Increase and Decrease on Principal Articles ... 197
  Kauri-gum ... 204
  Of Australasian Colonies... 217
  Phormium ... 204
  Quantities of Principal Articles, 1898 and 1899 ... 196
  Rabbitskins ... 200
  Re-exports, exclusive of Specie ... 198
    Of New South Wales compared with New Zealand ... 198
  Sheepskins and Pelts ... 201
  Tallow ... 201
  Timber ... 194, 196
  To United States ... 217
  Value of principal Articles of New Zealand Produce ... 193
  Wool, Twelve Years ... 199
External Trade of Australasia ... 218

Factories, Butter and Cheese ... 363
Factories Act, 1894 ... 318
Factories Acts. (See Year-book, 1894, p. 220.)
Farming, Dairy ... 470
Farming, Ostrich ... 349
Farm in New Zealand, Cost of Working a ... 465
Features of the Middle Island, Physical ... 10
  Of the North Island ... 7
Fees Payable under Land Transfer Act ... 86
Finance ... 380
Fire Inquests ... 254
Fish Acclimatised. (See Year-book, 1894, p. 431.)
Fish and Fisheries. (See Year-book, 1895, p. 378.)
First Offenders' Probation Act ... 253
Flax, Export of (see *Phormium tenax*) ... 204
Flocks of Sheep, Number and Size of ... 200
Foreigners Naturalised during last Eighteen Years, Number of ... 121
Foreign Consuls (see also Addenda) ... 24
Foster Homes, Remarks on ... 237
Foveaux Strait ... 13
Franchise ... 15
  Municipal ... 271
Freezing Establishments in the Colony. (See Year-book, 1894, p. 314.)
Friendly Societies ... 301
  In Australasia ... 321
  Lodges, &c., Assets, Receipts of Sick and Funeral Funds, Expenditure, Sick Pay, Management Expenses ... 301
Frozen-meat Industry (see also Year-book, 1894, p. 311) ... 201
Fruit Culture ... 472
  Drying ... 472
  Industry, The ... 472
Fungus, New Zealand, Export of ... 194, 196

"**Gaming** and Lotteries Act, 1881," Permits issued under ... 412
Gaols, Prisoners in ... 250
Gardens, Plantations, and Orchards, Total Acreage in ... 361
General Assembly, The ... 28
General Election, 1899 ... 157
Glaciers in Middle Island ... 11

Page

- Gold, Coal, and other Minerals ... 322
  - Coal-mining ... 328
    - Composition of ... 330
    - Consumption of ... 328
    - Output of ... 328
  - Gold exported ... 193
    - Total Quantity and Value entered for Exportation ... 202
  - Gold produced ... 322
  - Gold produced in Australia ... 323, 325
- Gold-mining, Result of—Hands, Output, &c. ... 322–327
  - Remarks on ... 323
  - Saving Gold by Cyanide Process ... 325
- Governing Bodies, Local ... 261
  - "Government Loans to Local Bodies Act Amendment Act, 1899" ... 269
- Government Advances to Settlers ... 426
  - Advances authorised ... 434
  - Business of Office ... 426
  - Conditions of Advance ... 428
  - Costs and Fees ... 429, 433
  - First Meeting of Board ... 434
  - Fixed Loans ... 429
  - Half-yearly Repayments, Table of ... 430
  - Instalments of Loans payable at Post-offices ... 433
  - Instalment Mortgages ... 429
  - Officials bound to Secrecy ... 433
  - Terms of Loans ... 429
  - Titles eligible for Advances ... 427
- Government Aid to Dairying ... 363
- Government Life Insurance Department ... 303
- Government Schools ... 222
- Government, the Seat of ... 16
- Government Valuation of Land and its Improvements ... 255, 438
  - Capital Values, North and South Islands ... 256
  - Comparison of Capital Values, 1888 and 1898 ... 256
  - Cost of making Valuation, How Borne ... 255, 439
  - Increase in Values ... 256
  - Objection, Right of ... 255, 439
  - Purposes for which Valuation-rolls used ... 255, 438
  - Values in Boroughs ... 259
  - Values in Counties ... 257
- Governor of New Zealand ... 27
- Governors, Successive ... 17
- Grading of Dairy Produce ... 363
- Grain exported ... 202
  - Grown in each Provincial District (see also Cultivation) ... 351
- Grass Lands, Acres of ... 352, 361
  - In Australasian Colonies, 1898–99 ... 362
- Grass-seed ... 464
  - Sown, per Acre ... 362
- Graving-docks and Patent Slips ... 54
  - Auckland Docks ... 54
  - Lyttelton Dock and Patent Slip ... 57
  - Port Chalmers Dock ... 56
  - Nelson Cradle ... 58
  - Timaru Slip ... 58
  - Wellington Patent Slip ... 56
- Grazing-runs, Small ... 372–375, 423
- Green Crops, Acreage under, in Provincial Districts ... 352

Page
Gum, Kauri ... 204, 489
  Area of Fields ... 490
  Earnings of Diggers ... 493
  Export of ... 204, 490
  Number of Diggers ... 489
  Price of ... 331, 490
  Remarks on ... 490

Hanmer Thermal Springs—Accommodation, &c.; Analysis of Springs; Benefit Derived from using Springs; Charges, &c.; Climate; Directions for using Baths; Journey to Hanmer; Masseuse available; Medical Attendance; Tourist Season ... 504
Harbour Boards Revenue, Expenditure, and Loans ... 266
Harbours. (See Year-book, 1894, pp. 389–408.)
Hawke's Bay Land District—General Description; Communication; Pastoral Industries; Agricultural Pursuits; Dairying; Timber and other Industries; Climate; Towns; Crown Lands; Native Lands ... 558
Hawke's Bay Provincial District: Progress in Eight Years ... 410
Hay, Acres in ... 352
Hemp, New Zealand (*Phormium tenax*) exported ... 204
Holdings, Number of occupied ... 336
Hollerith Electrical Tabulating Machine ... 106
Home Produce exported ... 193
Honours held by Colonists ... 26
Hops, cultivated, imported and exported ... 361
Horse-breeding ... 469
Horses in New Zealand, Number of ... 347
  In Provincial Districts ... 347
Hospitals ... 150
  Accommodation and Indoor Patients ... 151
  General Management ... 151
  Number of Districts ... 151
  Revenues of Boards, how raised ... 150
Hot Springs (see Thermal Springs) ... 495, 501, 504
House of Representatives (see also Corrigenda) ...15, 30
  Speakers of the ... 24
Houses, Licensed ... 288

Illegitimate Births in Australasian Colonies ... 117, 154
  In Maternity Homes ... 119
Immigration and Emigration ... 102
  Each Australian Colony ... 105
  From United Kingdom, Australian Colonies, and other Places ... 103
  Gain by net Immigration from United Kingdom in Ten Years ... 104
  Nominating Immigrants discontinued ... 102
  Of Chinese ... 102
  Poll-tax on Chinese ... 105
  To United Kingdom, Australian Colonies, and other Countries ... 103
Imports and Exports ... 166, 193
  Each Australian Colony, 1898 ... 217
Imports—
  Beer, Spirits, and Wine, Consumption of ... 172, 247
  Clothing, &c. ... 168
  Coal ... 169, 328
  Free and Dutiable Imports, Value of ... 170
  From different Countries, 1898 and 1899, Values of ... 173
    United Kingdom ... 172

- Imports—*continued.* Page
  - From different Countries, &c.—*continued.*
    - United Kingdom to Australasia 219
    - United States, Ten Years 217
  - Inclusive and exclusive of Specie, Twelve Years 166
  - Into Australasia 217
  - Per Head of Population 167
  - Spirits 171
  - Sugar and Tea, Imports of 171
    - Consumption of, per Head of Population 171
  - Tobacco, Consumption of 172
  - Trade per Head of Population, Australasian Colonies 218
- Improved-farm Settlements 372-375, 423
- Improvement in Education of the People 220
- Income-tax, Land and 434
  - Exemptions 435, 436
  - Rates of Tax 437
  - Yield of Tax 437
- Income-tax levied 392, 436
  - Growth of Amount Paid 394
- Incomes and Earnings 308
- Indebtedness of the Australasian Colonies 402
  - Of Local Bodies 265-269
    - For Nineteen Years 262
    - To Persons outside Colony 268
- Industrial Schools 236
- Industrial Life Assurance 304
- Inebriates Institutions Act 249
- "Infant Life Protection Act, 1896" 119
- Influenza, Deaths from 138
- Inquests, Death 253
  - Fire 254
- Instruction, State 222
- Insurance, Life 303
  - Companies in New Zealand 303
  - Government Life 303
- Introductory 1
  - Area of the Australasian Colonies 6
    - Colony of New Zealand 7
  - Boundaries and Area of New Zealand 5
  - Colonisation 3
  - Constitution 14
  - Cook Strait 10
  - Discovery and Early Settlement 2
  - Foveaux Strait 13
  - Glaciers in Middle Island 11
  - Government 15
  - Maoris, The 4
  - Outlying Islands 13
  - Physical Features of the North Island 7
    - Middle Island 10
  - Public Works 17
  - Seat of Government 16
- Iron, Machinery, &c., imported, Value of 168
- Islands, Description of the—
  - Antipodes 6
  - Auckland 6, 13
  - Bounty 6
  - Campbell 6

Islands, Description of the—*continued.* Page
  Chatham ... 6, 18, 537
  Cook. (See Year-book, 1895, p. 456) ... 6
  Kermadec ... 6, 13
  Middle ... 6, 10
  North ... 5, 7
  Stewart ... 6, 13

Joint Stock Companies ... 301
Jubilee Institution for the Blind ... 238
Judges, Supreme Court ... 19

Kauri District ... 490
Kauri-gum Digging ... 489
  Area of Fields ... 490
  Earnings of Diggers ... 493
  Number of Diggers ... 489
  Remarks on ... 490
Kauri-gum (Exported) ... 204, 490
  Average Price of ... 204, 490
  Quantities and Values exported ... 204, 490
Kermadec Islands ... 6, 13

Labour—
  In New Zealand. (See Year-book, 1894, p. 362.)
    Prices of Provisions, Live-stock, &c., 1899 ... 311
    Wages, Average Rates of ... 313
Labour Departmen, Men assisted by ... 321
Labour-Laws. (See Year-book, 1894, p. 220.)
Labour Legislation—
  Acts of Parliament composing ... 317
  Remarks on ... 317
    Industrial Conciliation and Arbitration ... 318
    Coal-mines Act ... 320
    Conspiracy Law ... 319
    Employers' Liability ... 319
    Factories Act ... 318
    Master and Apprentice ... 319
    Mining ... 320
    Servants' Registry Offices ... 319
    Shipping Acts ... 319
    Shops and Shop-assistants ... 318
    Trades-Union Act ... 319
    Wages Attachment ... 319
Lakes ... 9, 12
Lambing Averages ... 345
Land—
  Acreage of, under Crop ... 352
  And Income-tax ... 392, 434
  Crown, open for Selection (See Land Districts)
  Fit for Agriculture and Pasture ... 8
  Government Valuation of ... 255, 438
  Grass-sown ... 361
  Held as Pastoral Runs ... 372, 373
  Held as Small Grazing-runs ... 372–375, 423
  Held under Pastoral and Miscellaneous Leases ... 372, 375
  Holdings in Provincial Districts ... 338
  Holdings taken up ... 336
  Holdings taken up, Sizes of ... 336

Land—*continued.* Page
  Improved Farm Settlements 372–375, 423
  Occupation of 336, 372, 420
  On Perpetual Lease, Lease in Perpetuity, and Occupation with Right of Purchase 372–375, 421
  Rating on Unimproved Value 271, 439
  Revenue from 381
  Sold for Cash 372–375, 421
  Sold on Deferred Payments 372–375, 421
  Taken up under various Tenures, Eleven years 374, 375
  Taken up in each Land District 376
  Tax 392, 434
    Graduated 392, 437
  Village Settlements, Land held 372–375
  Village Settlements, sold on Deferred Payments and for Cash 372–375
Land and Improvements, Government Valuation of 255
Land Districts in the Colony, Description of—Auckland, 541; Canterbury, 586; Hawke's Bay, 558; Marlborough, 570; Nelson, 576; Otago, 595; Southland, 605; Taranaki, 549; Wellington, 561; Westland, 581.
Land for Settlements Acts 416
  Annual Rental under 378
  Estates offered for Selection during Year ended 31st March, 1900 ... 378
  Transactions under 378
Land-Laws, Digest of 419
  Administration 419
  Classification of Lands, &c. 420
  Grazing-runs, Small 423
  Improved-farm Settlements 423
  Land Districts and Principal Land Offices 420
  Mode of Acquiring Crown Lands 420
  Optional System of Selection 421
    Cash Tenure 421
    Leases in Perpetuity... 421
    Occupation with Right of Purchase 421
  Pastoral Runs 424
  Residence and Improvements 421
  Special-settlement Associations 422
  Survey Charges on Unsurveyed Lands 425
  Village-homestead Settlements 423
"Land Settlements Act, 1896, Aid to Public Works and" 389
Land System of New Zealand 413
Land-tax 392, 434
Land Transfer Act, Fees payable under... 86
Lands—
  Native, Purchase of, by Government 418
  Survey Charges on Unsurveyed 425
Land under Cultivation in Counties 353
Land, Valuation of—
  In Boroughs 259
  In Colony 256
  In Counties 257
Land-values—
  Results of Assessments, 1888 and 1898 256
  Total Valuations in Counties and Boroughs 257
Law and Crime 242
Laws, Difference of, between England and New Zealand. (See Year-book, 1896, p. 281.)
Legislation, Special Banking 296
Legislative Council 28

Legislative Council—*continued.* Page
- Native Members of the ... 15
- Roll of Members of the (see also Addenda) ... 29

"Legitimation Act, 1894" ... 119
Letters delivered and posted ... 369
Libraries, Public ... 240
Licenses and Licensed Houses ... 288
Licenses—
- Issued under "Gaming and Lotteries Act, 1881" ... 412
- Number and Fees paid ... 288
- Proportion to Population ... 288

Licensing Laws ... 290
- Alcoholic Liquors Sale Control Act ... 290
- Annual Fees ... 289
- Result of Polls taken in December, 1899 ... 291
- Revenue from Licenses ... 288

Life Insurance (see also State Insurance), Year 1898 ... 303
Lighthouses, Names and Number of, Colour, Order, &c. ... 58
Lincoln Agricultural College ... 224
List, Official ... 33
Literary and Scientific Institutions ... 240
Live-stock. (See also Sheep and Cattle) ... 340, 466
- Average Prices of ... 311
- Export of ... 194, 196
- In Australasian Colonies ... 342
- In each County ... 340

Living, Cost of ... 309
- Average Consumption per Head of Foods, &c. (See Year-book, 1898, p. 289.)
- In various Countries ... 309

Loans—
- Expenditure, 1899–1900 ... 384
- For Advances to Settlers ... 387
- General Government. (See Public Debt) ... 395
- Of Local Bodies, Outstanding, at various Rates of Interest ... 268
- Of Local Bodies, Net Indebtedness ... 267
- "Loans to Local Bodies Act Amendment Act, 1899" ... 269

Local Bodies—
- Cost of Management ... 266
- Expenditure of ... 265, 266
- Indebtedness: Nineteen Years ... 262
- Number of ... 261
- Outstanding Loans at various Rates of Interest ... 268
- Property in, Value of ... 259
- Rates collected in Nineteen Years ... 262
- Revenue and Expenditure of Boroughs, Counties, Drainage Board, Harbour Boards, River Boards, Road Boards, Town Boards... 263, 266
- Taxation by ... 263, 394

Local-Option Poll (1899) ... 290
Lucerne ... 465
Lunacy ... 153
Lunatic Asylums ... 152
Lunatics, Proportion of ... 153
Magistrates' Courts, Apprehensions, Convictions, &c. ... 245
Mail-services between England and New Zealand, Cost of ... 370
Maize, Area under ... 359
Manawatu–Wellington Railway ... 367
Mangolds and Carrots ... 460
Manual and Technical Instruction, 1898 ... 228
Manufactories and Works ... 220

Page
Manures, Artificial ... 462
Maoris, The ... 108
  Ages of, compared with European Population ... 113
  Charged with Offences ... 249
  Children attending Schools ... 234
  Contribute towards Revenue ... 393
  Convicted of Offences, 1887–98 ... 249
  Distribution of ... 113
  Enumeration of ... 110
  Half-castes ... 112
  Health of ... 111
  Mythology ... 536
  Population at Last Census ... 89, 112
  Probable Origin and Numbers ... 108
  Representation ... 15, 30, 163
Marlborough Land District—Physical Features: Rivers, Plains, Lakes, Forests, Soils, Grazing; Industries; Climate; Towns; Roads and Railways; Crown Lands ... 570
Marriage, Births to every ... 114
  Decrees for Dissolution of ... 244
  Decrees for Judicial Separation ... 244
  Rates in New Zealand, Australian Colonies, and European Countries ... 122
Marriages ... 122
  Ages at which Marriage may be contracted ... 126
  Ages of Persons Married ... 125
  Of Aborigines ... 123
  Percentage of Persons under 21 Years ... 126
  Proportion by each Denomination ... 124
  Proportion of each Sex signing Register by Mark ... 125
Marlborough, Nelson, and Westland Provincial Districts: Eight Years' Progress ... 411
"Master and Apprentice Act, 1865" ... 319
Measles, Deaths from ... 138
Meat, Frozen, Total Export of ... 201
Medical Practitioners ... 150
Medicine, School of, Otago ... 600
Members of House of Representatives, Roll of (see also Corrigenda) ... 31
  Legislative Council, Roll of (see also Addenda) ... 29
Members of House of Representatives, Occupations of ... 163
Metals and Minerals ... 322
Meteorological Observations ... 332–335
Miasmatic Diseases, Deaths from ... 135
Midland Railway ... 367
Miles of Railway open for Traffic ... 366
Military and Naval Defences ... 50
Milk—
  Average Yield of Butter from ... 470
  Average Yield per Cow ... 470
Mineral Production of Australasian Colonies ... 323
Minerals, Gold, Coal, and other ... 322
Mineral Waters of New Zealand (see Thermal-springs Districts)
Mines, Schools of ... 224
Mining Produce ... 322
  Remarks on ... 323
Ministers, Officiating, under Marriage Act ... 127
Ministers, Cabinet ... 27
Ministries, Successive ... 22
Miscellaneous Statistics ... 409

Page
Money-orders and Postal-notes ... 370
Morioris, The ... 112
Mortality in Liquor Trade (England) ... 140
Mortgages ... 301
  Amounts borrowed at various rates of interest ... 302
Mountains ... 9, 10
Mount Cook ... 10
  Egmont ... 9
  Ruapehu ... 9
  Tongariro ... 9
Mount Cook, A Night on ... 525
Mount Sefton, Ascent of ... 519
Mounted Rifles, Volunteers ... 51
"Municipal Franchise Reform Act, 1898," Qualifications for Enrolment under 271
Mutton. (See Frozen Meat.)
  Consumption per head. (See Year-book, 1898, p. 289.)
Mythology, Maori ... 536

Native Lands purchased by Government ... 418
Native Schools ... 234
Naturalisation ... 121
Nelson Land District—General Description; Rivers, Lakes, Plains, Forests; Agricultural, Pastoral, Mining; Towns; Railways, Roads, Tracks, &c.; Crown Lands... ... 576
Nelson, Marlborough, and Westland Provincial Districts: Eight Years' Progress ... 411
Nervous System, Diseases of, Deaths from ... 135
Newspapers ... 64
  Posted ... 369
New Zealand—
  Abolition of Provincial Governments in ... 15
  "Accident Insurance Act, 1899" ... 304
  Area of, Boundaries and ... 5
  Arrival of Missionaries in ... 3
  Captain Cook's Visits to ... 2
  Coal Deposits of ... 479
  Colonisation of ... 3
  Colony divided into Six Provinces ... 15
  Company ... 3
  County Government in ... 15
  Discovery and Early Settlement of ... 2
  Electoral Division of ... 156
  General Assembly of ... 28
  General Election ... 157
  Government Advances to Settlers ... 426
  Government Life Insurance ... 303
  Governor of ... 27
  Governors of, Successive ... 17
  Land System of ... 413
  Lieutenant Hanson's Visit to ... 3
  Made a Separate Colony ... 4
  Manufactories and Works ... 220
  Newspapers ... 64
  Permanent Militia ... 50
  Premiers of ... 23
  Provincial Governments abolished ... 15
  Progress, Eight Years ... 409
  Rainfall in ... 332

New Zealand—*continued.* Page

- Representative Government granted in ... 14
- Settlement at Port Nicholson ... 3
  - Canterbury ... 4
  - Nelson ... 4
  - New Plymouth ... 4
  - Otago ... 4
- Sovereignty of Queen proclaimed ... 3
- Stock, Quotations of (Twelve years) ... 402
- Surville, and Marion du Fresne, Visits of ... 2
- Tasman's Visit ... 2
- Temperature ... 382
- Treaty of Waitangi ... 4
- University of ... 230

New Zealand Consols—

- Currency of Deposits ... 447
- Forms of Application ... 447
- Rate of Interest ... 447
- Regulations ... 446
- The purpose of ... 446

Ngauruhoe ... 516

Night on Mount Cook, A ... 525

Oats—

- Acreage and Actual Yield in Provincial Districts ... 351
- Export of ... 202

Oat-crop of Australasian Colonies, 1899 ... 359

Occupation of Land ... 336

Occupations of Members of House of Representatives ... 163

Offences—

- Charges for, before Magistrates' Courts ... 245
- Committals for ... 245
- Convictions for ... 246
- Maoris charged with ... 249
  - Convicted before Supreme and District Courts ... 245, 249
  - Summarily convicted ... 249

Office, The Colonial ... 25

Official List ... 33

Officiating Ministers ... 127

Old-age Pensions—

- Amount of Pension ... 443
- Applications, how made ... 443
- Deductions ... 443
- How, when, and where paid ... 443
- Number granted to 31st March, 1900 ... 444
- Qualifications ... 442

Optional System of selecting Land ... 421

Orchards ... 361, 472

Orphan Asylums ... 152

Ostrich-farming in New Zealand ... 349

Otago Land District—Boundaries and Area; Physical Description; Rivers and Lakes, Plains, Forests; Building-stones, Coal, Limestone; Climate; West Coast; Fruit, Crops, Stock; Freezing Establishments, Woollen-mills, Clothing-factories, Dairy-factories; Gold Production; Chief Towns; City of Dunedin; Towns and surrounding country; Railways; Statistical; Local Industries ... 595

Otago Provincial District: Eight Years' Progress ... 411

Outlying Islands of New Zealand ... 13

Page
Parcels Post ... 369
  Value of Imports by ... 191
Parliament, Members of (see also Corrigenda) ... 31
Parliaments, Successive ... 21
Passengers, Railway ... 366
Pastoral Leases—
  Lands held under ... 372–373, 424
  Receipts from ... 373
  Tenants of ... 372, 373
Patent Slips and Graving Docks ... 54
Pensions, Annual Paid by Government ... 60
Pensions, Old-age ... 441
Permanent Militia (Artillery) ... 50
  Submarine Miners ... 50
Permits issued under "The Gaming and Lotteries Act, 1881" ... 412
Perpetual-lease System, Land held under the ... 272, 273
Perpetuity, Leaseholds in ... 272, 273
Petroleum ... 553
***Phormium tenax* (New Zealand Hemp)** ... 204, 447
  Export of ... 204
Phthisis, Death-rates from ... 141
  Deaths from, 1890 to 1899 ... 141
Physical Features of the North Island ... 7
  Middle Island ... 10
Pigs ... 348, 471
  In Counties ... 340
  In Provincial Districts ... 348
Plantations, Gardens, and Orchards, Acreage in ... 352
Ploughing, Cost of ... 456
Population of New Zealand ... 89
  Arrivals and Departures ... 102
    From and to United Kingdom ... 103
    Of Chinese ... 102
  Census, 1896 ... 91
  Chinese ... 89
  European ... 89
  Increase in each Quarter, 1899 ... 89
  In adjacent Islands ... 100
  In Principal Cities and Suburbs ... 94
  In Provincial Districts ... 90
  Maori ... 89, 112
  Of Australasian Colonies ... 101
  Of Boroughs ... 93
  Of Capital City ... 94
  Of Counties ... 92
  Of Town Districts and Small Centres ... 95
  Of Townships, Villages, &c. ... 96
Post-offices ... 369
  Average Number of Days within which Mails from London delivered ... 371
  Books and Parcels, &c. ... 369
  Increase of Correspondence ... 369
  Letters posted, per Head of Population ... 369
  Mail-service, England and New Zealand, Cost of ... 370
  Money-orders ... 370
  Newspapers ... 369
  Parcels ... 369, 370
  Postal Notes ... 370
  Post-cards ... 369

Post-offices—*continued.* Page
  Savings-banks ... 299
  Securities ... 299
Potatoes, Acreage under ... 360
  Cost of Growing ... 457
  Cultivation of... ... 458
  Export of ... 194, 196
  Seed per Acre ... 458
  Yield of ... 457
Practitioners, Medical ... 150
Premiers of Successive Ministries ... 23
Preserved Meats exported ... 194, 196
Prices and Wages ... 310-316
Prices of Australasian Stock ... 402
Prices of Provisions, Averages, 1878, 1888, 1898, and 1899 ... 310
Prices of Provisions, Live-stock, &c., Averages ... 311, 312
Prices on the Goldfields ... 311, 312
Principal Events, Dates of ... 609
Prisoners in Gaol—
  Ages of Distinct, convicted ... 251
  Birthplaces of ... 251
  Convicted, Number of ... 250
  Cost of maintaining ... 252
  Distinct convicted, Classified ... 251
  New Zealand-born, convicted, 1898 ... 252
  Previously convicted ... 250
  Religious Denominations of ... 251
Private Railways, Length, Cost, Revenue, and Expenditure ... 367
Private Schools ... 232
Private Wealth, Increase of ... 307
Probation Act, First Offenders treated under ... 253
Probate, Estates admitted to ... 305
Produce, Agricultural, Pastoral, and Dairy ... 203, 351-363
  Average Prices of ... 311, 312
  Mining ... 322
Progress of New Zealand, Eight Years ... 409
Property, Private ... 306
Property, value of, Rateable ... 270
Property-tax repealed ... 392
Prospects of Small Farmers ... 477
Provincial Districts, Progress for Eight Years ... 409-411
Provisions, Live-stock, &c., Prices of ... 311, 312
Public Debt ... 395
  Annual Charge ... 400
  Comparison with Past Years ... 400
  Details of Loans ... 396
  Flotation of Loans ... 401
  Increase of ... 398
  Net Indebtedness ... 398
  Of Australasian Colonies ... 402
  Purposes of Money composing Debt ... 404
  Rates of Interest on ... 399
  Sinking Fund accrued, Amount of ... 400
    Securities in which invested ... 401
  Stock Quotations ... 402
Public Libraries ... 240
  In Provincial Districts ... 241
  Members and Books ... 241
Public Property, Value of ... 308

Page

Public Schools ... 222
  Industrial Schools ... 236
  Secondary Schools ... 230, 236
  Technical Schools ... 224
Public Trust Office. (See also Year-book, 1898, p. 454.) ... 304
  Number and Value of Estates administered ... 305
Public Works ... 17, 403
  Expenditure on ... 405
Public Worship, Places of ... 239
  Accommodation in ... 239
  Denominations ... 240
  In Provincial Districts ... 239
Pumice-stone Deposits of the Middle Part of the North Island ... 486
Purchase, Occupation of Land with Right of ... 372, 373, 421
Purchase of Native Lands by Government ... 418

Quartz-mining ... 327
Quotations, New Zealand Stock ... 402

Railways ... 365
  Australasian Colonies, Miles of, in ... 368
  Comparison of Traffic, Revenue, and Expenditure for Ten Years ... 366
  Government, Goods and Live-stock carried ... 366
    Length and Cost ... 366
    Particulars of Revenue from ... 367
    Passengers ... 366
    Profit on Working ... 367
    Revenue and Expenditure ... 367
    Train-miles ... 366
    Traffic in Local Products for Ten Years ... 366
  In New Zealand, their History and Progress. (See Year-book, 1894, p. 377.)
  Midland Railway ... 367
  Private ... 367
    Cost of Construction, Revenue, and Working Expenses ... 367
  Wellington-Manawatu Railway ... 367
Rainfall in New Zealand ... 332–334
Raising Young Stock ... 470
Rape and Turnips, Acres under ... 360
  Cultivation of ... 458, 459
Rateable Properties in Boroughs ... 272
  In Road Districts ... 280
  Town Districts ... 279
Rates collected by Local Bodies, Nineteen Years ... 262
Rates of Wages, Average in Provincial Districts in 1899 ... 313–316
Rating on Unimproved Value ... 271, 439
  Interpretation ... 439
  Method of preparing Valuation-roll ... 439
  Method of taking Poll ... 439
  Ratepayers may demand Poll to be taken ... 439
  Rating Powers ... 440
  Result of Polls taken by Local Bodies ... 440
  System Optional ... 439
Repayments of Advances to Settlers ... 429, 430
Representation, and the General Election of 1899 ... 156
  Duties and Functions of Representation Commissions ... 156
  "Electoral Act, 1893" and Amendment Act, 1896 ... 16
  Electoral Acts ... 157
  Electoral Divisions of the Colony ... 156

Representation—*continued.* Page
General Election of 1899, European Representatives 157
Electors on Rolls in each Electoral District 158
Electors on Rolls, and Votes recorded, in Four City Electorates ... 160
Males and Females registered as Electors 158
Population, Census 1896, in each Electoral District 158
Proportion of Electors who voted, 1893, 1896, and 1899 157
Males and Females who voted 158
Persons registered as Electors, 1893, 1896, and 1899 ... 157
Votes recorded for Defeated Candidates 163
Recorded for each Candidate 160
Recorded in each Electoral District 160
General Elections for European Representatives from the Year 1853 ... 165
Maori Members, Election of 163
Proportion of Population who voted 164
Votes recorded 164
Qualifications of Electors, European 16
Maori 16
Representation Commissions 156
Woman's Franchise 16, 157
Residence and Improvements on Crown Lands 421
Revenue and Expenditure 380
From Government Railways 380, 381
From Land-tax and Income-tax 380, 381
Loan Expenditure, 1899–1900 384
Of Boroughs, Counties, Drainage Boards, Harbour Boards, River Boards, Road Boards, and Town Boards 264–266
Ordinary Revenue 381
Ordinary Revenue Expenditure 383
Territorial Expenditure 383
Territorial Revenue 381
Rifle Corps, Volunteer 51
River Boards, Revenue of 264, 265
Rivers 8, 12
Road Boards, Revenue, Expenditure, &c. 264, 265
Roll of Members of the House of Representatives (see also Corrigenda) ... 31
Legislative Council (see also Addenda) 29
Roman Catholic Schools 232, 233
Root-crops 360, 457
Rotorua District 495

Sailors' Home, Auckland 152
Sanatorium, Hanmer 504
Rotorua 495
Te Aroha 501
Savings-Banks, Post-Office 299
Private 300
Scholarships 235
Schools, Blind 238
Deaf and Dumb 238
Industrial 236
Cost of 236
Inmates, 1897 and 1898 237
Engineering 224
Mines 224
Native 234
Primary or Public 222
Private 232
Roman Catholic 232

Schools—*continued.* Page
    Secondary ... 230
    Sunday ... 239
    Technical ... 224
Scientific and Literary Institutions ... 240
Seeds, Grass- ... 361, 464
Selections, Number and Acreage of ... 336, 337
Septic Diseases, Deaths from ... 135
"Servants' Registry Offices Act, 1895" ... 319
Settlement, Discovery and Early ... 2
Settlements, Land for ... 377
    Acquisition of Land under ... 377
    Annual Rental under ... 378
    Estates offered for Selection during Year 1899–1900 ... 378
    Expenditure authorised ... 416
    Government Aid to Settlers ... 417
    Preference given to Landless People ... 417
    Process of Acquisition ... 416
    Special Provisions for Workmen's Homes ... 417
    Summary of all Transactions ... 378, 379
    Transactions of Board for Year 1899–1900 ... 378
Settlers, Advances to ... 387
Sheep ... 342, 467
    In Australasian Colonies, 1898–99 ... 342
    In Colony, Fourteen Years ... 343
    In Counties ... 340
    In Provincial Districts, April, 1898 and 1899 ... 344
    Number and Size of Flocks ... 200, 343
    Numbers in North and Middle Islands, Fourteen Years ... 343
Sheep-farming ... 467
    Clips, Average Weight of ... 467
    Cost of Management ... 345
    Grass-seed sown per Acre ... 362
    Lambing Returns ... 345
    New Zealand Flock-book ... 469
    Shearing, Price of ... 345
Shipping ... 364
    Coastwise, Inwards ... 365
    " Outwards ... 365
    Inwards and Outwards, Ten Years ... 364
    Laws ... 319
    Registered Vessels ... 365
    Vessels and Tonnage ... 364
Shipwrecked Mariners, Depots for ... 53
"Shops and Shop-assistants Act, 1894" ... 318
Silver Produced ... 322
Sinking Fund ... 398
Sinking Funds—
    Amounts paid for interest and ... 398
    Securities of ... 401
Sitting-days of House of Representatives ... 30
    Legislative Council ... 28
Slips, Patent ... 54
Small Centres, Populations of ... 95
Small Farmers, Prospects of ... 477
Small Grazing-runs ... 372-375, 423
Small-pox, Remarks on ... 139
Soils, Description of (see Land Districts)
Sounds, West Coast ... 11

Page
Southland Land District—Physical Features; Area, Nature, and Disposition of Lands; Agriculture, Dairy-farming, Sheep-farming; Coal and Gold; Fish, Fruit; Climate; Towns; Crown Lands for Disposal 605
Sown Grasses, Extent of 352, 361
    In Counties 353
    New Zealand, compared with Australia 362
Speaker of Legislative Council 29
Speakers of the House of Representatives, Successive 24
    Legislative Council, Successive 23
Special Settlement Associations 422
Spinsters and Bachelors in New Zealand 123
Spirits, Consumption per Head 172, 247
Springs, The Thermal 495, 501, 504
State Instruction (see Schools) 221
Statistical Synopsis: Progress of Colony ... ... 409 and Broadsheets
Stewart Island 6, 12
Stipendiary Magistrates' Courts, Apprehensions, Convictions, &c. ... 245
    Civil Cases 242
Stock in New Zealand, Live- 340, 466
    In Australasian Colonies 342
    Raising Young 470
Successive Governors 17
    Ministries 22
    Premiers 23
Sugar, Consumption of 171
Sunday Schools, Numbers attending 239
Supreme Court, Civil Cases 242
    Judges, Past and Present 19
Survey Charges on Unsurveyed Lands 425
Sutherland Waterfall, The 595

Tallow exported 201
Taranaki Land District—Physical Features; Soils; Dairying, Grazing, &c.; Mining; Climate; Towns; Roads and Railways; Crown Lands ... 549
Taranaki Provincial District: Progress for Eight Years 410
Tariff, Customs 71–85
Taupiri Coal-mines 485
Taxation by General Government 392
    By Local Bodies 263
    Deductions and Exemptions under Land- and Income-tax ... 392, 434
    Growth of Amount paid in Income-tax 394
    Incidence of Land- and Income-tax 392, 434
    Income-tax 392, 436
    Land-tax (ordinary) 392, 434
        Graduated 392, 437
    Per Head in New Zealand, for Seven Years (excluding Maoris) ... 393
        In Australasian Colonies 394
    Proportion derived from Customs, 1898–99 394
    Rate of, per Head, including Maoris 393
    Rates of Land-tax 392, 437
    Yield of Tax 392, 437
Tea, Consumption of 171
Te Aroha Mineral Springs. (See also Year-book, 1896, p. 427.) 501
    Access to Te Aroha 504
    Analysis of Springs 503
    Baths and Bath-houses 502, 503
    Description of Waters 502

Page

- Technical Education ... 224
  - Agricultural, Art, Engineering and Technical Science ... 224
  - Canterbury Agricultural College ... 224, 592
  - Examinations ... 225
  - Expenditure on ... 228
  - Manual and Technical Instruction, 1898 ... 228
  - Metallurgy ... 224
  - Remarks on ... 226
  - School of Engineering and Technical Science ... 224
    - Medicine, Otago ... 600
    - Mines, Otago ... 224, 600
- Telegraphs—
  - Messages transmitted ... 371
  - Miles of Line ... 371
  - Receipts ... 371
- Telephone Exchanges ... 371
- Temperature and Rainfall ... 332–335
  - At different Stations of New Zealand ... 332
  - Highest and Lowest in Shade, in New Zealand, the Australian Colonies, and other British Possessions ... 335
- Tenure of Occupied Lands ... 372
- Thermal-springs Districts—
  - Hanmer ... 504
  - Rotorua ... 495
  - Te Aroha ... 501
- Tenures, the Three under Land Act ... 421
- Timber exported ... 194, 196
- Tobacco, Consumption of ... 172
  - Cultivation of ... 361
- Tokaanu, Up the Wanganui River to ... 509
- Tongariro Mountain ... 9
- Totalisator Permits issued during Year ... 412
- Town Districts. (See Local Bodies.)
- Towns, Principal, and Suburbs ... 94
  - Towns, Villages, &c., Populations of ... 95
- Trade—
  - Australasian Colonies as Markets for Great Britain, Importance of ... 219
  - External, Total Value of ... 214
    - In Australasian Colonies ... 218
    - Per Head of Population, Fourteen Years ... 215
    - With Atlantic and Pacific Ports of United States, Ten Years ... 217
    - With Australia ... 216
    - With India ... 217
    - With United Kingdom ... 216
  - Of Australasian Colonies, Value of, per Head ... 218
  - Of Australasian Colonies with United Kingdom ... 219
  - (See Exports.)
  - (See Imports.)
  - (See Shipping.)
- "Trade-Union Act, 1878" ... 319
- Transport and Communication ... 364
  - Electric Telegraph ... 371
  - Mail-services ... 370
  - Postal and Electric Telegraph ... 369
  - Railways ... 365
    - Australasian ... 367
    - Cost of ... 366
    - Number of Miles travelled ... 366

Transport and Communication—*continued.* Page
Railways—*continued.*
Private Lines, Length, Cost, and Revenue ... 367
Revenue and Expenditure for Ten Years ... 367
Traffic for Ten Years ... 366
Traffic in Local Products for Ten Years ... 366
Treaty of Waitangi ... 4
Tree-planting ... 473
Troops for South Africa ... 449
Trout in New Zealand, Introduction of. (See Year-book, 1894, p. 431.)
Trust Office, Public (see also Year-book, 1898, p. 454) ... 304
Turnips, Acreage under ... 360
Cost of growing ... 360
Seed Sown per Acre ... 458
Yield per Acre ... 458
Typhoid Fever, Deaths from ... 138

Unimproved Value, Rating on ... 271, 439
United States, Trade with ... 217
University of New Zealand ... 230
Graduates ... 231
Students ... 232
Undergraduates ... 231

Vaccinations, Successful, Numbers and Proportions ... 138
Valuation of Land, Government ... 255, 438
Value of Home Produce exported ... 193
Value of Land, Increased ... 256
Value of Real Property ... 256, 270
Vessels. (See Shipping.)
Victoria College ... 231
Village Settlements... 423
Vine-growing ... 472
Violent Deaths ... 150
Vital Statistics ... 114
Vital Statistics, Australasian Capitals, 1899 ... 132
Volunteers ... 50
Votes and Voters at General Election ... 158

"Wages Attachment Act, 1895" ... 319
Wages in each Provincial District ... 312-316
Waitangi, Treaty of ... 4
Wanganui River to Tokaanu, Up the ... 509
Water-races, Canterbury ... 589
Wealth, Private ... 305
Calculated from Probate Returns ... 306
Of Australasia ... 307
Wealth, Public ... 308
Wellington Land District—Physical Features; Plains, Rivers, Lakes, Scenery, Forests, Soil; Climate; Harbours and Ports; Towns; Crown Lands; Industries, &c. ... 561
Wellington-Manawatu Railway ... 367
Wellington Provincial District: Eight Years' Progress ... 410
Westland Land District — Physical Features, Mountains, Rivers, Forests, Lakes, Soil, Climate, Lands, Harbours, Towns, Mining and Minerals, &c. 581
Westland, Marlborough, and Nelson Provincial Districts: Eight Years' Progress ... 411

Page
Westport Coal Company (Limited) ... 482
Wheat, Amount held from Previous Season ... 356
  Acreage and Actual Yield in Provincial Districts ... 351
  Area under, and Produce, Ten Years ... 356
  Consumption of, in New Zealand ... 357
    Annual Average, Principal Countries ... 357
  Crops of Australasian Colonies ... 357
  Crops of the World ... 357
  Export in 1899 ... 202
  Seed Sown per Acre ... 456
Whooping-cough, Deaths from ... 138
Wine, Consumption of, per Head for Seven Years ... 172
Winter Oats and Cape Barley ... 465
  Yield per Acre ... 465
Women's Franchise ... 16, 157
Wool—
  Exported ... 198
  Increase in Production of, Twelve Years ... 199
  Proportions of Greasy, Scoured, and Washed Wool exported, Three Years 199
  Used at Local Mills ... 199
Woollen Manufactures exported ... 195
Works, Public ... 17, 403
World, Wheat-crop of the ... 357

By Authority: JOHN MACKAY, Government Printer, Wellington—1900.

1852 (INCLUSIVE).

Expenditure.			
evenue m Sources.	Parliamentary Grant, or Receipts in aid of Revenue.	Appropriations from the Commissariat Chest for Military and Naval Expenditure.†	Total Expenditure.
£	£	£	£
926	..	..	926
390	43,347	804	81,541
589	17,494	1,426	51,509
398	9,562	8,093	39,053
949	30,815‡	9,782	54,546
899	..	200,000	212,899
645	35,673‡	190,000	252,318
265	37,752	153,038	234,055
482	36,000	155,653	239,135
408	20,000	151,455	221,863
298	41,730	131,100	232,128
049	20,000	110,600	197,649
764	10,000	91,600	177,364

l the information is only approximate. ‡ Raised by

ents, 333; Baptists, 400; Unitarians, 74; Lutherans, 186;

1,188; other crops, 679: total under crop, 29,140. Acres

MINATIONS.

Numbers.			Proportions per Cent.			Proportions of the Sexes in every 100 persons.	
sons.	Males.	Females.	Persons.	Males.	Females.	Males.	Females.
,360	371,415	331,945	..	..	..	52·81	47·19
,238	370,637	331,601	100·00	100·00	100·00	52·78	47·22
,166	148,171	132,995	40.04	39·98	40·11	52·70	47·30
,643	996	647	0·23	0·27	0·19	60·62	39·38
,952	84,259	75,693	22·78	22·73	22·83	52·68	47·32
,373	31,481	31,892	9·02	8·49	9·62	49·68	50·32
,041	3,449	3,592	1·00	0·93	1·08	48·98	51·02
,893	1,476	1,417	0·41	0·40	0·43	51·02	48·98
60	34	26	0·01	0·01	0·01	56·67	43·33
,037	7,690	8,347	2·28	2·07	2·52	47·95	52·05
,777	3,284	3,493	0·97	0·89	1·05	48·46	51·54
,538	3,537	2,001	0·79	0·95	0·60	63·87	36·13
375	232	143	0·05	0·06	0·04	61·87	38·13
321	200	121	0·05	0·05	0·04	62·31	37·69
,859	2,700	3,159	0·83	0·73	0·95	46·08	53·92
,035	2,359	2,676	0·72	0·64	0·81	46·85	53·15
77	36	41	0·01	0·01	0·01	46·75	53·25
33	23	10	0·00	0·01	0·00	69·70	30·30
95	59	36	0·01	0·02	0·01	62·11	37·89
,532	5,244	5,288	1·50	1·41	1·59	49·79	50·21
952	485	467	0·14	0·13	0·14	50·95	49·05
191	101	90	0·03	0·03	0·03	52·88	47·12
776	316	460	0·11	0·09	0·14	40·72	59·28
340	148	192	0·05	0·04	0·06	43·53	56·47
65	32	33	0·01	0·01	0·01	49·23	50·77
61	27	34	0·01	0·01	0·01	44·26	55·74
,710	860	850	0·24	0·23	0·26	50·29	49·71
,525	50,348	47,177	13·89	13·58	14·23	51·63	48·37
,279	704	575	0·18	0·19	0·17	55·04	44·96
116	99	17	0·02	0·03	0·01	85·34	14·66
247	118	129	0·04	0·03	0·04	47·77	52·23
549	808	741	0·22	0·22	0·22	52·16	47·84
289	162	127	0·04	0·04	0·04	56·05	43·95
376	196	180	0·05	0·05	0·05	52·13	47·87
391	3,374	17	0·48	0·91	0·01	99·50	0·50
187	125	62	0·03	0·03	0·02	66·85	33·15
983	3,076	907	0·57	0·83	0·27	77·23	22·77
562	426	136	0·08	0·12	0·04	75·80	24·20
46	38	8	0·01	0·01	0·00	82·60	17·40
898	2,410	1,488	0·55	0·65	0·45	61·83	38·17
46	31	15	0·01	0·01	0·00	67·39	32·61
90	1,089	401	0·21	0·29	0·12	73·09	26·91
7	88	[illegible]	0·02	0·02	0·01	75·21	24·79
3	11		0·02	0·03	0·01	73·20	26·80
			0·02	0·03	0·01	80·87	19·13
	1		2·27	2·74	1·76	63·51	36·49
			.	..	..	..	..

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43